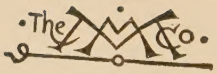
THE PSYCHOLOGICAL PRINCIPLES OF EDUCATION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THE PSYCHOLOGICAL PRINCIPLES OF EDUCATION

A STUDY IN THE SCIENCE OF EDUCATION

BY

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WHOM SHOULD THIS VOLUME SEEK TO HONOR BUT THE FATHER AND MOTHER WHO MADE POSSIBLE BOTH MY EDUCATION AND MY PSYCHOLOGY?

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PREFACE

PROGRESS in every art dates from the application of science. Chemistry widens industry, physics perfects means of communication, bacteriology advances medicine, sociology humanizes jurisprudence, economics elevates business, scholarship revivifies Biblical truth. The old professions of law, theology, and medicine grounded themselves in science during the mediæval period. Business and teaching, though arts as old as man, have not yet struck into the sure path of science. There are many indications, however, that these arts also are now in the act of transition from the empirical to the scientific. The period of transition has already lasted a generation; it is likely to last several more.

This volume attempts to lay scientific foundations for the art of teaching, so far as those foundations are concerned with psychology. Though the art of education is founded in all the sciences of man, probably no science has quite so much to contribute as psychology. The wonderful progress in all departments of psychology during recent years makes an outline map of consciousness now possible. The same progress makes educational applications in order; for, as Professor Titchener says, "No sane man can doubt that there is

a relation between the science of mind and the art of teaching."

The author has attempted to be the middle man between the psychologist and the teacher, taking the theoretical descriptions of pure psychology and transforming them into educational principles for the teacher. The psychologist as such cannot be asked for practical applications, nor must the teacher be burdened with technical and unapplied psychology. The book will satisfy neither readers of pure psychology nor lovers of teaching devices; it seeks to satisfy teachers who love the principles of their art.

There is a certain peril in attempting the practical in the matter of educational principles. The vision must not fail, lest the old-time rule of thumb, rote, and insipidity be again enthroned. Nor must the application fail, lest the vagueness of abstract theory both confuse and weary. Is it possible to say practical things to the busy and devoted host of American teachers that shall be at once inspiriting and non-mechanical, avoiding each horn of the dilemma of unusable theory and useless platitudes? Let this book be my trial answer, to the publication of which I am encouraged by the many teachers, in various places, who have heard its contents in lecture form.

The outline of the discussion is evident from a glance at the table of contents. In Part I we get our bearings in the field of the science of education. The remainder of the book sketches such a science from the standpoint of psychology. Its parts are suggested by the nature of man, the subject of education. Psychologically

viewed, man is body and soul. The phases of the soul's life, according to distinctions wrought now into common usage and adopted here for this reason, are knowledge, feeling, and will. At the same time psychology finds in the soul no religious section, just because the whole soul is conscious of its relationship to deity. In view of the nature of man, complete education, psychologically viewed, is therefore physical, intellectual, emotional, moral, and spiritual. These give the divisions of the book. Only the discussion of physical education is omitted, as the reader who is interested in doing so can find my views on this subject elsewhere.[1] At this point I may remark, by the way, concerning the relationship of my two books to each other that, whereas the first was mostly theory with some practice, this is mostly practice with some theory.

A few characteristic things about the mode of treatment may here be noted. Perhaps for the first time in the many similar works in this general field, the education of the emotions is permitted to stand on a noticeable parity with intellectual and moral education, in accord with the theory of the former volume. Also, the education of the emotions and the will is treated with greater analysis than customary, but no greater than their complexity deserves. Also, I have attempted to emphasize practically the idea of the unity of education by concluding the work with a discussion of religious education. This is not a new type of education but just education conscious of its true end, as the teacher whose life is right spiritualizes education into religion.

[1] The Philosophy of Education, ch. III.

At the same time the reader will observe my effort not to mix the educational and religious issues in the American public school situation.

For convenience of reference the chapters are numbered continuously, despite the division of the book into parts. The special problems and bibliography at the end of each chapter are intended to serve the teacher of the subject, and also to provoke the reader to further study and reflection upon what is perhaps one of the gravest and greatest human problems.

If this volume helps to point the way to a science of educating, or to make the task of any fellow-teacher somewhat lighter and sweeter, the author has his reward.

Hanover, New Hampshire,
May 26, 1906.

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PART I

INTRODUCTION: A SCIENCE OF EDUCATION

CHAPTER I

THE CONCEPT OF A SCIENCE OF EDUCATION[1]

Is there a science of educating?

In considering this subject, upon which such a variety of modern opinion has been expressed, let us begin with a definition of the terms involved.

Meaning of "Science."

By "science" we may agree to mean classified and verifiable knowledge. The root meaning of the word *science* suggests knowledge. But not all knowledge is science. Only the knowledge whose details appear in some relatively organized whole, into which some order has been introduced by classification, deserves to be called scientific. The knowledge of the usual, untrained mind fails of being scientific at this point of system. And further, also, the knowledge that is truly scientific is verifiable; it is capable of demonstration by other observers, by all other efficient observers. The announcement of a new discovery, like the appearance of "canals" on the planet Mars, becomes truly scientific only when any capable astronomer can verify it. Physics, chemistry, botany, biology, logic, æsthetics, ethics, etc., are called sciences, for example, because they are classified and verifiable bodies of knowledge. The

[1] This discussion is a revision of a paper on the same subject read at the World's Congress of Arts and Sciences in St. Louis, September, 1904.

nether and the upper boundaries of science are both vague, it is true, — there being no clear line of cleavage where unscientific knowledge ends and scientific knowledge begins, or where scientific knowledge ends and speculative hypotheses begin.

So far it is evident that if educating is capable of reduction to a scientific basis, there must be had concerning it a body of systematized and demonstrable knowledge.

Descriptive and Normative Science.

To assist us further in thinking of what a science is, the logicians and philosophers who have sought to classify the various sciences distinguish two kinds, viz. the descriptive and explanatory, and the normative. The so-called descriptive sciences tell us what the fact is and what are its causes. The normative sciences tell us what the fact ought to be; *i.e.* they establish norms or standards of experience. Physics, history, and psychology would illustrate the descriptive sciences, while logic, æsthetics, and ethics would illustrate the normative sciences. Psychology describes and explains states of consciousness, including how we think; logic tells us how we ought to think in order to reach valid conclusions.

So our first question must now be restated in the form, Is there a descriptive, or a normative, science of educating; or, indeed, are the facts of educating capable of both modes of treatment? This is the question we must seek to answer as soon as we can agree what our second term, "educating," signifies.

Meaning of "Educating."

By "educating" in this connection we may agree to mean the realizing of the natural powers of pupils

through all the agencies of the school. This definition, and indeed the very form of the word we have chosen, — "*educating*," — suggest the activities of education. Educating is no passive process; it is doing something; it is the fertilizing and cultivating of minds. Presupposing the inherent mental capacities as the gifts of nature, educating is a seeking to find and to realize them. The term covers whatsoever the school, as one of the institutions of society, does to assist its members in becoming their true selves.

Educating primarily an Art.

This definition leads us at the threshold of our inquiry to consider whether educating is primarily a science or an art. What a science is we have seen; an art in distinction from a science is action rather than knowledge. The arts are the practical endeavors of society to express its purposes. We speak of the arts of navigation, of war, of commerce, etc. Obviously, educating is primarily an art. It is one of the practical activities of society to attain a specific purpose. Just as society engages in the art of producing and distributing wealth, of applying nature's forces to man's purposes, of healing diseases, of reforming criminals, of ministering to souls, so also it engages in the art of educating the young. In considering whether educating is reducible to a science, we must not, therefore, lose sight of the fact that it is primarily an art.

The Analogy of the Arts.

But the analogy of the other arts throws us back with emphasis upon the opening question whether and in what sense there is a science of educating; for all the efficient arts of society rest upon sciences. There are

economic laws for the capitalist, natural and mathematical laws for the engineer, physiological and anatomical laws for the physician, pathological and social laws for the criminologist, psychological and ethical laws for the minister. In proportion as educating is similar to the other arts of society, analogy would lead us to suppose that there are some laws for the teacher. Educating is similar to the other arts in the essential respect of being a social activity to attain a specific purpose. This essential similarity warrants the presumption by analogy that there are also laws for the educator. He alone in the group of social experts is not to be left without scientific guidance. Presumptively at least, then, in addition to being primarily an art, educating is also secondarily a science.

A Descriptive Science of Education.

But, now, in what sense may we think of educating as a science, descriptive or normative? There can be no question that a descriptive science of educating is possible. Students of education can observe, gather, classify, organize, and verify facts. There is nothing about educational phenomena to prevent their being studied scientifically. Only those matters that are beyond human observation and verification, like the realities of pure philosophy, such as God, Freedom, and Immortality, forbid by their nature scientific treatment. The observable data for such a descriptive science of education are largely at hand in the educational documents of the race, including all accounts and reports of what the facts of education have been and are. If history is a descriptive science,

who can deny that the history of education is a descriptive science? And if there can be "A History of our own Times," there can be a history of contemporary educational systems. A descriptive science of education would include then a careful and systematic record of the past and present educational facts. Such a descriptive science associates itself with that group of the sciences commonly called social, other members of which are economics, sociology, and history. Remembering the extent to which the facts of education have been recorded, compiled, digested, and classified in our day, the extent to which histories of education, however imperfect, already exist as a result of such eager study, we must affirm that a descriptive science of education is not simply a possibility, but also a partial actuality.

Conflicting Attitudes toward a Normative Science of Education.

If the original question as to the possibility of a science of education had contemplated only a descriptive science, not much warfare would have been waged concerning it. The centre of controversy has been the deeper question, "Is a normative science of educating possible?" That is, is it at all possible to say not simply what education is, but also what it ought to be? Do the school processes admit at all of being directed toward an ideal? Is there any definable ideal of education? To such deep and far-reaching questions as these the answers have naturally been diverse. He whose mind is possessed by the changes of races, and conditions, and times, and problems that history has to record, answers quickly that no

universal science of educating, no absolute pedagogy, is possible. He whose mind, on the other hand, is possessed by the sameness in human nature, by the unity of the race, by the permanence of mental laws, answers firmly that in some sense there is possible a normative science of educating. What answer shall we render? As leading the way to our conclusion, let us review the opposing arguments. It may turn out the two positions are not mutually contradictory, and that we may find a standing-ground between them.

The Negative Position of Dilthey and Royce.

In 1888 Professor Dilthey of the University of Berlin raised the question before the Berlin Academy of Sciences of the possibility of a universally valid pedagogical science.[1] With the general negative conclusion of this inquiry Professor Royce, in 1891, found himself in substantial agreement, as follows: —

"In short, scientific pedagogy, far from telling the teacher finally and completely just what human nature is, and must be, and just what to do with it, will be limited to pointing out what does, on the whole, tend toward good order and toward the organization of impulses into character. 'This is the whole province of pedagogy' as a general science. Its applications to the conditions of a particular time, nation, family, and child, will be a matter of art, not science. . . .

"There is no universally valid science of pedagogy that is capable of any complete formulation and of direct application to individual pupils and teachers.

[1] "Ueber die Möglichkeit einer allgemeingiltigen pedagogischen Wissenschaft."

Nor will there ever be one as long as human nature develops, through cross-breeding in each new generation, individual types that never were there before; so long as history furnishes, in every age, novel social environments, new forms of faith, new ideals, a new industrial organization, and thus new problems for the educator. . . .

"To sum it all up in one word: Teaching is an art. Therefore there is indeed no science of education. But what there is, is the world of science furnishing material for the educator to study."[1]

And with these conclusions many students of education find themselves in agreement.

Criticism of this Position

In estimating these notable and influential positions of two leading thinkers, it is necessary to note carefully just what is denied, and the reasons for the denial. A universally valid science of educating is denied, because (1) conditions change, (2) individuals differ, and (3) teaching is an art.

Concerning the facts that conditions change, individuals differ, and teaching is an art, there may be no dispute. Concerning the conclusion from these facts that no universally valid science of educating is possible, there may likewise be no dispute. But with this conclusion we must not confuse, as the authors seem to do, the entirely different one, that "there is, indeed, no science of education." Universal validity is not one of the inalienable characteristics of science; — those characteristics, as we saw, were system and

[1] "Is there a Science of Education?" *Educational Review*, Vol. 1, two articles.

verifiability. There may be a science of education that is not universally valid, just as there is a science of therapeutics not universally valid, whose principles depend for their application upon the peculiar condition of the case diagnosed. In short, the fallacy of the argument is that which technical logicians call *ignoratio elenchi*, or irrelevant conclusion.

Concerning the unquestionable conclusion that no universally valid science of education is possible, it is sufficient to remark that there is no need and no demand for such. All that society needs is a relative, not an absolute, pedagogy; is a growing, not a static, educational ideal.

The Argument from Change of Condition.

But I desire also to examine the reasons urged to see whether they would justify the conclusion that there is no science of education at all, either absolute or relative. The fact that the conditions of human society change from age to age does not warrant the conclusion that nothing can be said in each age concerning what education ought to be, but only the conclusion that what one age says another age must revise. The educational ideal must itself develop as the nature of human society successively discloses itself. Changing conditions do not negate normative educational procedure, — they only demand continuous improvement in educational procedure. The history of education is abundant warrant for this conclusion. Where social conditions have notably changed, quickly some educational reformer demanded that the schools adjust themselves to the new order. Indeed, it is also true that when some social reformer,

like Plato, has pictured an ideal society, he has also looked to education to enact his reforms with the young and plastic generation. That the fact of changing human conditions does not annul normative educational science, a modern writer states thus: "The social environment to be dealt with changes in character with the evolution of the race, and varies with the different races; the physical environment is modified by the locality, and so on. But our general principle, as a type of educational propositions, is none the less scientific because it has not just the same application in all instances, though it may be less mathematical, less perspicacious, more complex and indeterminate on this account." [1]

The Argument from Individual Variation.

The second reason mentioned above, viz. individuals differ, does not invalidate a relative pedagogy. It is important to observe that the differences of individuals as subjects of education are no greater than the differences between individuals as members of society, as having physical bodies, or as having intellectual, or emotional, or volitional natures; and yet the sciences of sociology, physiology, logic, æsthetics, and ethics seem possible. In other words, the objection to the science of educating, if universalized, would render impossible all the existent sciences of man.

On the other hand, the possibility of a relative normative science of educating appears in the real and fundamental similarities of human beings. Our likenesses are greater and deeper than our differences. Our processes of physical and mental activity are

[1] O'Shea, "Education as Adjustment," p. 13.

similar; the results of those processes in deeds and thoughts are different. The essential similarities of men appear in all their coöperative effort, like speech, industry, and the arts of civilization. Essential similarities in physical and mental action permit generalizations, and generalizations allow practical applications. They suggest a norm, a standard, to which experience in general should conform. Because pupils in school are alike, general principles of guidance are possible; indeed, in a considerable degree, they already exist.

The Argument from Teaching as an Art.

The last argument that, because teaching is an art, it is not a science, we have already had occasion to anticipate. Admittedly, teaching is primarily an art. This admission, however, does not warrant the conclusion that teaching cannot be secondarily a science. Such a conclusion neglects the analogy of the arts. Besides, from the time of Socrates until now the teacher has had his norm in going about his work, has had what he conceived as a good and as a bad way of teaching. And when he did not know himself, others have not been hesitant in telling him how he ought to do. The argument here turns upon fact; and the fact is that educational standards of procedure, however imperfect, exist and have existed ever since education began to be reflectively considered among the Greeks.

Conclusions of the Critical Argument.

Considering the arguments of Professors Dilthey and Royce as a whole, we must conclude that they establish that no universally valid science of educating is possible, but this conclusion is irrelevant; also that the arguments do not disprove the real point

at issue, viz. whether a relative and adjustable normative pedagogy is possible. Positively, the rebuttal of these arguments has rather tended to confirm the presumption given by the analogy of the arts, viz. that there is a sense in which a normative pedagogy is possible.

Another Negative Position Considered.

In addition to the conspicuous objections just considered, there is another rather general and popular one, that pedagogy is not exact. This objection goes along with the general feeling that knowledge deserving to be called scientific ought to be exact. The feeling is natural. Exactitude is an ideal of scientific investigation. Also it must be fully admitted that pedagogy is not exact, as physics, chemistry, or astronomy are exact.

The Inexact Sciences.

But in reply to such considerations as serious objections to the formulating of a science of educating, two things must be taken into account. One is, that there are also inexact sciences, like biology and sociology and psychology. Indeed, the sciences that deal with life, the vital sciences, are all inexact. Only the lifeless things, like matter, admit of rigidly exact treatment; the live things defy our final measurements and descriptions, — they outgrow our accounts of them. None the less there are sciences of life, inexact though they be.

The Increasingly Exact Study of Education.

The second thing to remember is that the vital phenomena, in general, and educational facts, in particular, are being more and more successfully viewed in exact statistical fashion. Not that mathematical

precision will ever be attained in the vital sciences, but such precision is the ideal of investigation, and is being ever more and more approximated. In the light of such newer work,[1] we may confidently expect that educating will become increasingly an exact science, though never becoming finally so, and thus this objection will have diminishing weight with the lapse of time.

The Positive Position.

Is there a normative science of educating possible? A summary of the preceding considerations involves the following reasons for an affirmative answer; viz. (1) each age can and does say something concerning what the education of its own children ought to be; (2) the essential similarities of children permit relative generalizations and applications; (3) the analogy of the arts suggests a science underlying the art of education; (4) the history of education reveals the presence of conscious norms; (5) the normative science of education is, and probably must remain, inexact; and to these may be added, (6) the existence of normal institutions and the normative writings of educational experts, implying the reality, if inadequacy, of an educational standard.

The Argument from Institutions.

To refer to this last argument from institutions and men more in detail. From the time when the Jesuits began in the seventeenth century to train their teachers, down through the service of the normal schools abroad and at home, even to the establish-

[1] Cf. for instance, the psychological and pedagogical writings of E. L. Thorndike.

ment to-day of schools of education and graduate departments of pedagogy in connection with practice schools in our universities, various institutions have by their existence affirmed the possibility of a scientific knowledge of education. The position of various educational writers will be the same.

The Work of Alexander Bain.

To omit consideration of Herbart, the most notable advocate, doubtless, of education as a science, we may mention the work and influence of Alexander Bain. In 1878 appeared his famous discussion, "Education as a Science," which is the forerunner and the superior of many modern volumes. Bain opens his discussion with this paragraph: "The scientific treatment of any art consists partly in applying the principles furnished by the several sciences involved, as chemical laws to agriculture, and partly in enforcing, throughout the discussion, the utmost precision and vigor in the statement, deduction, and proof of the various maxims or rules that make up the art. . . ."[1]

"Further it aught to be pointed out, as specially applicable to our present subject, that the best attainable knowledge on anything is due to a combination of general principles obtained from the sciences, with well-conducted observations and experiments made in actual practice. On every great question there should be a convergence of both lights. The technical expression for this is 'the union of the Deductive and Inductive Methods.' The deductions are to be obtained apart, in their own way, and with all

[1] "Education as a Science," p. 1.

attainable precision. The inductions are the maxims of practice — purified, in the first instance, by wide comparison and by the requisite precautions." [1]

The Work of W. H. Payne.

In 1886, to take another early example, Professor W. H. Payne wrote his "Contributions to the Science of Education," from which I take the following passage: "In respect of method, therefore, the case may be stated in this way: the greater part of the material composing the science of education is borrowed from other sciences; and these first principles, thus taken on trust, must be applied to use by the deductive method. There are other principles, however, that the science of education must find, and the method of this finding must be inductive; but when actually found, these laws, like those that are borrowed, must be applied deductively. But a concurrent factor throughout the whole science must be the verification of laws and their applications by the analytical study of results; and this verification is an inductive process." [2]

The Methods of Educational Science.

In addition to affirming the possibility of a science of educating, Bain and Payne also agree in suggesting the means whereby it is to be attained. Since whether a body of knowledge deserves to be called scientific or not depends so largely, almost exclusively, upon the method whereby it was attained, we may well consider next the scientific methods at the disposition of students of educational phenomena. These are in general the same as those that belong to any scientific investigation; viz. generalizations from ob-

[1] *Op. cit.* p. 9. [2] Page 18.

served phenomena and applications to new conditions; or, technically, induction and deduction.

Induction.

To consider the place of induction in the formation of a science of educating. This is the newer mode of investigating educational facts, as, since Francis Bacon, it is the modern mode of investigating natural facts. It means the observing and classifying and explaining of all accessible educational data; it leads to what Professor Hanus and others have called "the organization of educational experience." It is the essential, though not exclusive, method whereby education as a descriptive science is being attained. The best in the descriptive is the basis for the normative. Thus in education, as in other fields, induction is one of the two feet with which scientific progress has moved.

To illustrate the contemporary emphasis upon inductive methods in educational studies, particularly methods of the exacter sort, I will quote from one of the texts referred to above: "The science of education when it develops will, like other sciences, rest upon direct observations of and experiments on the influence of educational institutions and methods made and reported with quantitative precision. Since groups of variable facts will be the material it studies, statistics will everywhere be its handmaid. The chief duty of serious students of education to-day is to form the habit of inductive study and learn the logic of statistics." [1]

Deduction.

We may feel sure that these exacter inductive methods

[1] Thorndike, "Educational Psychology," pp. 163–164.

are the source of our coming educational discoveries. Meanwhile, the other foot upon which scientific progress has marched must not be omitted. Deduction applies what induction discovers. Induction has already discovered much concerning the nature of man. These results are embodied in the sciences of man, like anthropology, sociology, psychology, logic, æsthetics, ethics, and the rest. These sciences by what they already reveal concerning man are able to suggest what man's true nature is. They consequently can suggest the educational ideal. The educational ideal is the realization of man's true nature. The results then of these sciences of man need to be put in utilizable shape for those who would intelligently develop a man according to his true nature. The knowledge of the real nature of man, that is what educators need. Such knowledge suggests both the goal of human development and the means necessary, in consonance with past developmental agencies, to reach that goal. The definition of this goal and the means of its attainment involves present deductive applications of past inductive discoveries. Here again, it is the knowledge of what man is that suggests what he ought to be. The normative is the idealizing of the descriptive.

We find a contemporary illustration of the use of the logical method of deduction in the field of education in the numerous, often crude, so-called psychologies for teachers. The most of them are in large part both poor psychology and unpractical pedagogy. There are a few oases, however, in the desert, like James's "Talks to Teachers." But the number of these

books recently illustrates the legitimate demand that psychology shall place its knowledge of the human mind at the disposition of the teacher. That the quality of these books at first should have been poor is natural. Scientific psychologists had, as a rule, the ability but not the inclination to make educational application, while the practical pedagogue had, as a rule, the inclination but not the ability. We may confidently expect the quality of the applied psychologies to improve continually from the increasing attention that the psychological experts are giving educational problems.

The Use of All the Sciences of Man.

But we need something else in the normative science of education besides an improvement in the quality of the practical psychologies. We need even more to-day educational applications from the whole range of the sciences of man, including anthropology, sociology, logic, æsthetics, ethics, the science of religion, etc. The search-lights of all the human sciences need to be turned upon contemporary educational methods and ideals. To begin with, biology must tell us what education can and cannot do for a man. The other sciences must tell us how man has developed in order that we may use these same forces in forwarding his progress; also what his goal is, so far as it can be dimly suggested, that we may move in the right direction. If, for example, anthropologists have discovered that, "in human childhood, whether of race or individual, the hand leads the mind,"[1] here is a fact most

[1] Cf. W. J. McGhee, "Strange Races of Men," *World's Work*, August, 1904.

significant for the educator in dealing with the problem of manual training. If, for example, the science of religion reveals man, in the words of the lamented Sabatier, as "incurably religious," here is an element of the educational ideal whose omission is intolerable. It is the destiny of man to become completely what he already is potentially. So far, thus, from being limited to applied psychologies, educational science must include the application of all the organic and human sciences. Confronting this standard of educational science, giants become pygmies, and experts blunderers.

What a Science of Education most Needs.

Welcome all the agencies that are manfully and courageously attacking this central problem of human welfare. For a science of education the essential demand is for scientists at work in its field, for those who can both wisely induce from past and present facts, and safely deduce from all the sciences of man. To quote Professor O'Shea again, "The greatest need in education to-day is the development of the scientific temper among teachers, and the adoption of scientific method by all who treat of educational questions." [1] To such scientific investigators we can trust the child-study movement, the pedagogical experiment stations, the educational laboratories, and all the deductive applications. It is no time for lamenting that the noonday of educational science is not here, for the dawn appears, nor for complaining at the futility of past endeavors, for we are already entering into those

[1] "Education as Adjustment," Preface.

pioneer labors. "It is possible, conceivably it is more than possible, that modern pedagogics may be struggling out of darkness into some more divine light than has been vouchsafed as yet." [1]

Summary.

We may now summarize our answer to the opening question. A descriptive science of education is clearly possible, — the concept of such a science being only classified and verifiable knowledge concerning what education is. A normative science of education also appears possible, — the concept of such a science being a body of growing knowledge classified and verifiable concerning how and toward what goal education ought to proceed. This science is continuously derived inductively from all the experience of the school and deductively from all the sciences of man. The implications of experience must be tested by the results of the sciences, and the applications of the sciences must be tested in the crucible of experience. From the attrition of these two, as from the upper and lower millstones, will issue the strength of educational life. May the succeeding pages contribute their iota to this youngest science!

That such a science is a consummation devoutly to be wished, the labors of the educational reformers of the world, the longings of practical teachers and superintendents, and the needs of society for the greater man and woman, abundantly testify. What science has already been able to attain in the almost

[1] Barrett Wendell, "Our National Superstition," *North American Review*, September, 1904.

virgin field of education condemns idle doubt and warrants the faith that works. Educators are learning to say with Mackay, —

> "Blessings on Science! when the world seemed old,
> And faith grew doubting, and reason cold,
> 'Twas she discovered that the world was young,
> And taught a language to its lisping tongue."

Problems for Further Study

1. The Classification of the Sciences.
2. The Relations of Science and Art.
3. The Relations of Descriptive and Normative Science.
4. Herbart's Conception of the Science of Education.

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CHAPTER II

THE RELATION OF THE HISTORY TO THE SCIENCE OF EDUCATION

In the preceding chapter it was said that the history of education reveals the presence of conscious norms. This chapter will attempt to illustrate this statement and also to suggest the purpose and utility of the history of education for the student of its science.

The Purpose of the History of Education.

The study of the history of education tends to give us several desirable results, viz. an account of what was thought about the child in any period of the world's history and the consequent educational attitude toward him, the real centre of all educational endeavor; an account of the methods used in attaining that end for which the child was supposed to exist; an account of the lives, characters, and theories of those men that have taught and fashioned the teaching of the world; an account of those educational tendencies larger than individual men and spanning years and hundreds of years in their influence; a description of the social, political, and religious conditions under which the separate systems of education flourished, and of which they were an integral part; and lastly, and perhaps most significant of all for the scientific student of education, its history describes and explains the stages in the development of the gradually unfolding educational

ideal. No mind to-day unacquainted with the grand sweeps of past educational thought and practice as they have brought us down to our present can say in any detail what is the educational ideal. It will come, when it comes, as the issue of the educational travail of the ages. The children of this generation cannot become perfect apart from the children of the former times.

The Utility of the History of Education.

The utility of an intensive study of the history of education will appear in the comprehensive view, unnarrowed by the circle of the present, of the world-wide, civilization-old field of education; in the heightened ability to avoid those failures in practice and to repeat those successes which are there set for our instruction; in the knowledge of the origin of those systems and institutions with which we have to work to-day; in the inspiration and high enthusiasm that follows from touching hearts and hands with the most notable teaching personalities of the years, like Socrates, Jesus, and Pestalozzi; and finally too in the knowledge of those permanent principles of instruction sifted from chaff by the winds of many a trial, in obedience to which the educational ideal is to be increasingly attained.

Several specific illustrations will now make clear the intimacy existing between the history and the science of education. The educational ideal is what the science of education seeks. The national ideal is one of the elements which the history of education

must include. Now it seems to be true that the educational ideal is both the effect and the cause of the national ideal, the effect of the past national ideal, the cause of the future national ideal. With the national ideal of freedom and democracy in America goes the educational ideal of a free and universal system of instruction; with the national ideal of despotism and repression in Russia goes the educational ideal of enlightenment for the few and ignorance for the many. The setting of the norm or standard of educating in any country is dependent upon that country's conception of what a citizen ought to be. The science of education in any period is in part a logical deduction from that period's history and civilization.

The Educational and National Ideals.

The permanent educational lesson of the Orient is the subjection of individuality. There the things thought of are absolute rulers, priests, caste, codes of etiquette, parental government, and there is a sense of the reality and unity of the social order inclusive of all individuals unimagined in a Western mind. All this seems foreign enough to us. Yet no part of the race's life has been spent in vain, and the lasting lesson of the Orient is the place of obedience in life. The East is the perpetuation of the childhood of the race. The child in the West must, too, ever learn to obey; he first is subjected to elders and the old customs of society before he can reach individuality and self-control.

The Lesson of the East.

The permanent educational lesson of the West is the expression of individuality. Here the things thought of are free thought, free speech, free action,

The Lesson of the West.

free press, local self-government, representative government, and democracy, — a freedom most loved by those once bound in the shackles of some form of Oriental suppression and now liberated. This lesson of the West is due to the welding of Christianity with its idea of the divine worth of the individual to the Teutonic race with its "demonic sense of individuality," as Tacitus described it. To these two influences is due that liberty of individual initiative which is the chief glory of Western peoples. And our schools, which are the reflection of our life, demand fulness of individual growth. If there be first obedience, it is only that later there may be liberty, the liberty that consists not in the absence of law, but in conformity to righteous law.

The Mutuality of East and West.

The passivity of the East is a good balance-wheel for the activity of the West. What the West has to teach the East is progress, investigation, the natural sciences, and the spirit of freedom ; what the East has to teach the West is conservatism, meditation, independence of material environment, and the spirit of restraint. The lesson for which each hemisphere stands it has incorporated into its system of education. In the East, through the training of memory and the study of the ancient classics of literature and philosophy, and the teaching of the duties appropriate to each class in society, the individual is fitted to occupy his predestined place. In the West, through the training of observation, and the study of natural forces, and the teaching of the duty to become one's unhampered best self, the individual is fitted to make for

himself his own place. These two attitudes not so much contradict as supplement each other, for there is an element of determinism and there is an element of freedom in human life. In short, the human educational ideal must include both the passive and the active elements, both conservatism and radicalism, both subjection and freedom, both the East and the West. Thus is illustrated how the educational ideal as sought by the science of education is a resultant of the synthesis of the surviving national ideals as described by the history of education.

The Goal of Human History and the Educational Ideal.

In the same fashion great civilizations in the East and West, like Persia, Egypt, India, Judea, Greece, Rome, would have permanent elements to contribute out of their practice of education to the modern ideal of education, which would thus appear as the rich resultant of many conveying forces in which no fragment of a valuable ideal wrought out in any country would be lost. All of which means to say that the educational ideal should be framed in harmony with the natural goal of human history. When we ask what is the goal toward which human development is tending, broad students of history and government differ in their interpretation. Many historians do not care to undertake the answer of the question at all. For those who do undertake the answer, the subject is too great not to differ about. A profound philosophy must underlie any answer that can be given. Some will maintain with Hegel that progress in self-consciousness is what history means. Some will maintain with such educational writers as Professor

Paul Monroe and Professor Mark that the harmony of the individual and society is what history is gradually bringing forth. Others will agree with the wide generalization of John Fiske that the development of moral character and progress toward the perfection of the living God is what the history of the world is set to accomplish. Still others will find themselves in agreement with the mode of statement used by President Wilson, viz. history means the equalization of the conditions under which individuality is developed. More and more as the swift seasons roll in every country of our planet man is given the straight, square opportunity to become what he can. Birth is discounted, restrictions are removed, wealth is no passport, poverty no shame, and the strong bear the burdens of the weak. The making equal of the conditions that develop individuality means a sensitive social conscience, a responsiveness to the inequalities of social conditions. We should doubtless all agree that this result is at least a part of the goal of human history, in harmony with which the educational ideal must include the element of the socialized individual: the individual that is quick in responding to social need, intelligent in the adoption of social means, and efficient in reaching social ends.

The Histories of Education and Civilization.

In its relations to the ideals of education, the history of education is here viewed as a part of the history of civilization, which treats of the ideas and the ideals contributed by nations to the life of the world. The justification of this view appears in the consideration that education is one of the most effective civilizing forces

known to man. No complete history of civilization could omit the educational element, as no complete history of education could omit reference to those national ideals recorded in the history of civilization. The history of education thus has something to say concerning the definition of the educational ideal. That ideal cannot be framed in ignorance of the Greek ideal of culture, of the Roman ideal of efficiency, of the Hebrew ideal of goodness, of the mediæval ideal of training, and the modern ideal of service.

The History of Education and the Methods of Teaching.

The history of education also has something to say concerning those principles of instruction whereby the ideal is to be approximately attained. The definition of the scientific method of educating cannot be stated apart from the concept of Socrates, the dialectic of Plato, the observation of Aristotle, the parable of Jesus, the induction of Bacon, the sense-perception of Comenius, the child-study of Rousseau, and the sympathy of Pestalozzi. The method of educating is the synthesis of those methods that the great educators have used.

Summary.

To sum up, in conclusion, the relations of the history to the science of education, we may say: (1) the educational ideal of any nation is both an effect and a cause of its national ideal; (2) the human educational ideal is ultimately definable only in consistency with the natural goal of historic human development; and (3) the principles of educating by which the educational ideal is to be approached are those that the history of educational practice has vindicated.

Problems for Further Study

1. The Ideals of Different Ancient and Modern Nations.
2. The Goal of Human History.
3. The Educational Ideal.
4. The Principles of Instruction used by Great Educators like Socrates.

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CHAPTER III

THE PROBLEM OF EDUCATION

UNDER this title I desire to discuss the presuppositions of education, the different ideals of education, the elements of the problem of education, and the task of the teacher as he assists in the solution of the problem.

The Presuppositions of Education.

By the presuppositions of education are meant those things without which the educational process cannot go on. These in number are four, viz. the pupil, the curriculum, the educational environment, and the teacher. They cannot be further reduced; the simplest educational situation, even Garfield's famous description of a college as Mark Hopkins on one end of a log and a student on the other, involves these four elements. The efficiency of the educational process is conditioned by the efficiency and harmony of these coöperating parts.

The Pupil.

The pupil is the real centre of the educational process, despite the fact that *doceo* shows the Romans thought the person the indirect, but the thing the direct, object of instruction. The pupil is that immature person about whom curriculum, environment, and teacher revolve. He with his fellows represents the social potentiality of the present and the social power of the future. We cannot too deeply impress our-

selves with the conclusion that education as such is an abstraction and becomes concrete only when embodied in social individuals.

The Curriculum.

The curriculum is that which the pupil is taught. It involves more than the acts of learning and quiet study: it involves occupations, productions, achievements, exercise, activity. It thus is representative of the motor as well as the sensory elements in the nervous system of the pupil. On the side of society it is representative of what the race has done in its contact with its world, — the secrets of knowledge it has wrested from the bosoms of nature and man, the ideals of the imagination it has embodied in permanent forms of art, and the deeds of man's will that have changed the face of nature and the character of human society.

The Educational Environment.

The educational environment includes all those conditions under which the educational process goes on. The day is gone when a log is enough. Garfield's remark has already served too long the obstructionist to improvements of the educational plant. The environment must include buildings, grounds, interior decoration, sanitation, books, laboratories, apparatus, and material for occupations. The more useful, artistic, neat, clean, ample, the educational environment, the more and the better are the responses of pupils. A certain college president remarked he made no better investment of college money than keeping the grass on the college campus well mown.

The Teacher.

The teacher is the life-sharer. The educational process at bottom is the sharing of life. He is my

teacher, whoever he be, who, maturer than I, shares my life. With his relatively mature life the teacher enters into and takes upon himself the lives of his pupils that they may become one with him. However mature he may be, the teacher must see to it that he have teachers of his own: those poets, priests, and prophets of the race in whose light he sees light and from whose life his own life is quickened. Teaching at bottom is the art of stimulating the growth of the soul; no less conception of it is quite true or worthy. Immature pupils of capacity, widening their lives by each of many teachers' lives, become individually greater than any one of their teachers. Thus the human coefficient is multiplied with the passage of the generations. Thus the race itself is incorporating more and more of the divine experience through being taught of its great ones, themselves taught of God. The man or woman that accepts in spirit and in truth the office of teacher as the sharing of life comes into the keeping of the secrets of the Most High.

The Different Ideals of Education.

These then are the presuppositions of education, the things behind the educational process. Facing about, what are the post-suppositions, as they might be called, of education, the things before the educational process, the ideals toward which the movement is directed? There are as many answers to-day as there have been ages of civilization in the past. Among these ideals for which different times and nations have stood and for which the modern educational world in various ways stands are to be enumerated the following:

culture, efficiency, discipline, knowledge, development, character, and citizenship.

Culture. Culture is the capacity for the intellectual and æsthetic enjoyment of leisure; it was the educational ideal of ancient Greece and the inspiration of the liberal education of the Renaissance; it is a word particularly needed by modern overworked society.

Efficiency. Efficiency is the ability to do things quickly and well. It was the educational ideal of ancient Rome and is the inspiration of the modern demand for practical education. It is an indispensable word in any system of universal education, which the Greeks did not have, and in all democratic, progressive, and free societies.

Discipline. Discipline is sharpening the tools of consciousness. The word has had a great run in educational history from the mediæval religious discipline of the soul, through the later discipline of the "faculties," to the modern discipline of the mind. It will retain its place as an educational ideal to the extent that the school is considered a place of preparation for later living instead of a place of present living. As a matter of fact the best preparation for later living is right present living; at the same time present immature living is not so real as later maturer living. For this reason the conception of discipline has a real, though greatly limited, place in the educational ideal.

Knowledge. Knowledge is content of consciousness descriptive of fact. It is a fairly constant element in the educational ideal running through the ages, based on the fundamental human instincts of curiosity and wonder.

Under the influence of the modern re-discovery of nature through the stimulus of Bacon's "Novum Organum" and the English empirical school led by Locke, knowledge became the dominant ideal of education, as illustrated in the Pansophic plans of Comenius. The presence of the natural and physical sciences in the modern curriculum is witness to this ideal. The joy of scientific discovery will ever remain a part of the scholar's portion. The field of human knowledge is too broad for any future Aristotle to compass it satisfactorily for thirty succeeding generations. The preservation of old, and the pursuit of new, knowledge will ever remain a part of an inclusive educational ideal.

Development.

Development as an educational ideal means the realization of the capacities inherent in human nature. The emphasis upon this ideal began with Rousseau and was continued by Pestalozzi and Froebel. The conception that consciousness grows and is not made was prior to Darwin's theory that the body grows and is not made, and the influence of the ideal of development on education is analogous in extent to the influence of the theory of evolution on science. Through its influence it is no longer possible to attribute to education the making of men and women; all that education does is to bring to the fruition native potentiality. The increase of potentiality in the race is nature's work through the mating of strong personalities. Education adds nothing directly to human endowment, but does make it usable. It ought now to go further and begin to fit for wise parenthood.

As development is the true mode of growth it can never cease to be a portion of the educational ideal.

Character.

Character is the disposition of a person's will. It is the great word introduced into the theory of the aim of education by Herbart, who himself received it from his predecessor, the sage of Königsberg, Immanuel Kant. It is Kant who says the only absolutely good thing in the world is a good will. The great German idealists, Fichte and Hegel, take up the strain that the end of education is the formation of moral character. Schopenhauer agrees with Kant in attaching primacy to the will. The great common sense of mankind has always held that the head must not be educated at the expense of the heart. The feelings of worth attaching to the life devoted to righteousness demand that character form a permanent constituent of the educational ideal.

Citizenship.

Citizenship is man's place in the state. It is the most recent of the words that have come to the fore concerning the true ideal of education, so recent that perhaps no leader of the movement can be selected, though the name of Horace Mann may be mentioned. The ideal of citizenship, of taking one's place in the state, appears prominently in the aristocratic Republic of Plato, but his education after all is mainly for the philosopher kings rather than the artisan subjects. The modern revival of the study of history, the new sciences of economics and sociology, and the magnitude of modern social and political problems, have all tended to emphasize the educational ideal of citizenship, particularly in America, the country that has

done most for the individuality of its citizens. As the state is one of the permanent institutions of society, and as man must ever live in organized relations with his fellows, citizenship cannot be omitted from the constituency of the educational ideal.

From this brief review of the different educational ideals of past and present we are at once face to face with the first of the elements of the problem of education, viz. a definition of the educational ideal.

The Elements of the Problem of Education.

Among the elements that go into the composition of the complex educational problem may be enumerated the following: (1) the organization of the educational ideal; (2) the securing of the attendance of pupils in school; (3) the provision of a worthy curriculum; (4) the provision of a worthy educational environment; and (5) the approximate attainment of the educational ideal in practice. The immediate relationship between the presuppositions of education and the elements of the problem of education will be observed.

Theory.

The organization of the educational ideal as one of the elements of the problem of education falls to the lot of the educational theorist. He will probably find that the educational ideal is no single one of the various historic ideals reviewed above, but is a synthesis of them all with due emphasis upon each. Not in the part but in the whole is the truth to be found. For the individual's sake, education must aim at culture, knowledge, and development; for society's sake, it must aim at efficiency, character, and citizenship.

And when this is said it must be quickly added that the individual aims are also secondarily social, and the social aims are also secondarily individual.

Attendance. The securing of the attendance of pupils in school as one of the elements in the problem of education falls especially to the lot of parents and society. How the responsibility rests upon parents is obvious. It will also be observed how society itself is responsible in the form of public opinion, compulsory attendance laws, the employment of child labor in factories, an educational qualification for the suffrage, etc. Secondarily, what the school itself is plays a part in the attendance problem.

Curriculum. The provision of a worthy curriculum and educational environment as elements taken together in the problem of education falls to the lot of the administrative authorities and teachers of the school. Through these alone the curriculum is determined, and through these mainly is to be fostered that public opinion which by taxation liberally supports the school system. Wisdom is as much needed to-day in the expenditure of school funds already provided as tact in securing larger appropriations.

Practice. The approximate attainment of the educational ideal in practice, the most vital of all the elements of the problem of education, falls primarily to the lot of the teacher. He it is that, given the aim, the pupils, the curriculum, the environment, must stimulate and direct the growth of human souls. He is the only essential factor in solving the problem of education, as witness Socrates and Jesus. A really great teacher

anywhere attracts pupils, makes the curriculum worthy, consecrates any environment, and is himself the educational ideal. We may come somewhat closer to the task of the teacher.

The Task of the Teacher.

The task of the teacher involves at least four elements, viz., first, so to instruct and to occupy as to develop his pupils. Information is communicated, gathered, or elicited from pupils' minds in a way to realize power, and occupations are provided in a way both to arouse and to satisfy interest, and to attain skill. The teacher, whether by sensory or motor material, is the developer.

Developer.

Second, it is the task of the teacher to be the medium of communication between the pupils' mind and the subject-matter. Without him, it is dead stuff to them. He knows both them and it. From it he selects those things they can bear and them he gradually widens to cover it. Without him, they are self-taught, and so poorly taught; with him, their growth is consecutive and the subject appears in its intrinsic and extrinsic articulation. The teacher, between impersonal truth and personal life, is the mediator.

Mediator.

Third, it is the task of the teacher to interpret life to his pupils. Living is the great art. In its keeping are the keys of destiny. Through inexperience the art of living well is difficult to pupils. Through his wider experience and observation the teacher is, or ought to be, comparatively a master of the art of living. To him are known the shallows and the rocks and also the great safe deep, with the harbor beyond.

Interpreter.

While his pupils are with him, he is their advisory, not compulsory, pilot; from him they learn the art of steering well the vessel of life. It is a vessel always freighted with merchandise precious to others. Figures aside, the teacher, by his daily walk and conversation, throws in true perspective the good and bad of life, translates into the language of immaturity life's great words of truth, is the interpreter of life.

The Priest of Progress.

Fourth, as if what has preceded were not enough, as if to him that hath shall be given and he shall have abundantly, it is the task of the teacher to perfect mind, — the last instrument selected in evolutionary progress. Evolution is now proceeding along mental instead of physical lines. Mental competition has taken the place of the old physical struggle for survival. The last innings are those of the spirit; upon the treatment of the spirit in this epoch of the world's change depends the next destiny of the human race. Long before the time allotted by the astronomers for our planet to become a dead frozen ball humanity will have decided whether the gift of the spirit is too much for it or no. The content of historic time and a profound philosophy unite in an optimistic outlook, — spirit will preserve itself, man will become yet greater. The whole weight of the teacher's influence is cast for the individual and social preservation of the spirit; he brings souls into their kingdom. He is the prophet and priest of progress.

Because of the greatness of his task, let the teacher magnify his office. But lest he magnify it unduly and the vice of pride supplant the virtue of humility,

let him remember his fellow-servants, the parent, the statesman, the minister, and also that to no one nor all of these does this world and its future belong, nor are their tasks self-appointed.

Problems for Further Study

1. Definition of the Educational Ideal.
2. Theory and Content of the Curriculum.
3. The Mental Basis of Evolution.

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CHAPTER IV

THE ESSENTIAL QUALIFICATIONS OF THE TEACHER

THE pertinence of this theme to the preceding discussion is obvious. The teacher's part in the solution of the problem of education is predominant and his consequent task is great. What are the qualifications essential to its performance?

The limitation "essential" in the title is important. To enumerate all the qualifications of the teacher would comprise an account of all the elements of manhood. Here I simply wish to write of those things without any one of which a prospective teacher should resign his intention.

What are they?

It is a familiar remark of Dr. Arnold's that the qualifications for which he looked in teachers were character, tact, and scholarship. Taking this suggestion from a great head-master as a starting point, and reversing the order for purposes of discussion, there seem to me to be four indispensable qualifications of the teacher, viz. a knowledge of the subject taught, a knowledge of the pupils taught, the ability to teach, and a worthy character. Once again we are led to remember the presuppositions of education, already discussed. If the teacher is master of these, that is, of his subject, of his pupils, of his equipment, and of

himself, he is qualified to teach. It will be noticed that the colleges and universities in their preparation of teachers have underemphasized the knowledge of the pupils and the ability to teach, that the normal schools have underemphasized the knowledge of the subject, while all have agreed in affirming that a worthy character is necessary. Each of these qualifications, regarded as essential, must now receive attention in succession.

The Knowledge of the Subject.

And first, the knowledge of the subject. Why must the teacher know his subject? It would be a superfluous question if teachers really knew their subjects. Let us urge with several reasons an accurate and comprehensive knowledge of their subjects upon all teachers. It seems so obvious to observe that we cannot teach what we do not know. The Frenchman Jacotot, however, said this very thing could be done, and our practice is often in accord with his theory. We fish and catch what pupils know when our own basket is empty. When they ask us questions we cannot answer; we tell them that would be a good thing to look up. It is better in theory and practice to follow Plato, "No one can give to another that which he has not himself, or teach that of which he has no knowledge." [1]

Without Knowledge no Teaching.

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Know Much to teach Little.

Again, he must know the advanced principles of his subject in order to be able to teach its elements. No one can teach all he knows. To teach as much as he has to teach, he must know more. To teach the lower he must be capable of teaching the higher. The lower

[1] Symposium, 196 E, tr. Jowett.

is intelligible only in the light of the higher. It takes the calculus, if we but knew it, to get from 1 to 2; it takes comparative philology, if we but knew it, to get from *a* to *b*, especially to get from *b* to *c*. The great universities put their large elementary classes in any subject into the keeping of their most advanced professors.

Knowledge begets Enthusiasm,

Again, an increasing knowledge of his subject begets a real enthusiasm in the teacher. In his case as well as with his pupils interest follows in the wake of growing knowledge. He comes into his class room with the ardor of achievement about him. Nothing spreads more rapidly than a genuine feeling. His class catches his spirit; his developing knowledge, his real interest, arouse them also. Together they can now work, and a new dynamic, the power of an enthusiastic interest, is introduced into school life. It will come through one well-endowed teacher knowing his subject.

and Self-confidence,

A knowledge of his subject begets, further, a certain degree of self-confidence in the teacher. Not to know what he ought to know in the class room makes the teacher nervous, ill at ease, and afraid of the questions of his bright pupils. Ignorance of the subject one is teaching is safe only in an atmosphere of repression and dull sloth. To know his subject permits the teacher, unabashed, to answer some questions with a confession of ignorance, because as yet nobody knows their answer, or, perchance, they are beyond his field.

and the Respect of the Class.

It is also true that knowledge of his subject begets respect for the teacher from the class, particularly if he have a commanding personality. It hurts the influ-

of the teacher to be caught in a mistake when he should have known better. Not that the air of infallibility is to be cultivated, but that the subject is so mastered that the teacher knows what to say, if he says anything at all. One of the sad banes of teaching is the easy ability to answer pupils' questions without knowing the answer. In subjects requiring muscular skill like gymnastics, manual training, music, drawing, it must very early become evident that the teacher can really do the things he wants the pupils to do.

Knowledge gives Right Perspective.

One other reason still why it is essential that teachers should know their subjects is to be added, especially for the sake of the pupils, viz. that teachers may know what to emphasize and what to omit in a subject. A lesson is very much like a picture, having a foreground and a background. There are essentials to be stressed and non-essentials to be passed over lightly. The framework of the discussion should stand out clearly for all; it may even be written on the board, while many things in the text may simply drop into the background where they belong. It is the teacher who does not know his subject that considers one thing as important as another.

Professor Münsterberg on School Reform.

Probably nobody in America believes less in pedagogy than Professor Münsterberg; and probably nobody believes more in reforming our schools than does he. He places his emphasis in school reform on the better instruction of teachers. He writes:[1] "Just as it has been said that war needs three things, money, money, and again money, so it can be said with much greater

[1] "School Reform," *Atlantic Monthly*, May, 1900.

truth that education needs, not forces and buildings, not pedagogy and demonstrations, but only men, men, and again men, — without forbidding that some, not too many of them, shall be women. . . . No one ought to be allowed to teach in the grammar school who has not passed through a college or a good normal school; no one ought to teach in a high school who has not worked after his college course, at least two years in the graduate school of a good university; no one ought to teach in a college who has not taken his doctor's degree in one of the best universities; and no one ought to teach in a graduate school who has not shown his mastery of method by powerful scientific publications. We have instead a misery which can be characterized by one statistical fact: only two per cent of the school teachers possess any degree whatever."

The Need of Inductive and Psychological Knowledge.

Having read so far perhaps the resolution is now forming in our minds to get hold of the bottom of our subjects. If so, let me attempt to say a directing word. A text-book knowledge is not enough. It is deductive; it moves from principles to illustrations; it is well arranged and classified, and all this is very good. But this is not enough. We need to get at the very facts that make text-books possible. We want the sources of our subject, its growth through the ages, the discoveries that mark its epochs, its services to man. In short, to the logical, deductive, and formal knowledge of the subject add the psychological, the inductive, and vital. This also helps to give the teacher the learner's point of view, who is always advancing in any subject from less to more.

Cautions concerning Knowledge of the Subject.

As we pursue an intimate acquaintanceship with that branch of human knowledge we have chosen to teach, especially if we are sufficiently grounded in it to be termed specialists, it is necessary to add two words of caution. We must not neglect the art of teaching and we must not lose interest in men. The art of teaching requires such a different attitude of mind from the original pursuit of knowledge that not many investigators can teach at all. The investigator is inquiring for himself; the teacher is leading the inquiries of others. Thus there is a certain self-surrender in teaching which great investigators are loath to make. And lose not interest in men through absorption in things. The personal quality pervades the teaching relationship, while investigating pursues an impersonal truth. The great scholar finds himself often becoming remote from men, as the German lecturer who rushes into his room, delivers what he has written, and is gone again, without access from his hearers.

Knowledge of the Pupil.

The teacher then must know his subject; this is his first essential qualification. And he must also know his pupils; this is his second essential qualification.

Kinds.

Now there are two kinds of knowledge of pupils, viz. of them as individuals, unlike all others, and of them as a class, like all others. No two pupils, even twins, are exactly alike; this is their individuality. And any two pupils, even unrelated by blood or race, are very much alike; this is their common nature as immature minds developing according to certain psychological laws. Now our qualification is intended to cover both kinds

of knowledge of pupils; the teacher must know the individual pupil, however difficult in large classes, and the teacher must know the general pupil, however abstract the psychological science that describes him.

Knowledge of Individuals.

Why must the teacher know the individual pupil? There are two elements in the answer. In the first place, because no general principle of dealing with pupils is exactly applicable to this individual. Our individuality means just this: we cannot be treated successfully according to a mechanical pattern. Each individual is unique, is one of a kind, is *sui generis*. This variation inherent in individuality demands a constant adjustment of principle to personality; it makes the schoolroom an organism, not a mechanism. So real is the necessity of adapting principles to persons that, as we had occasion to see in Chapter I, it has been claimed that education can never become a science. Though disagreeing with this conclusion, the presence of individual variation does mean the omnipresence of the art element in putting the science into practice. The teacher will find that the best place to learn his pupils individually is not in the class room but on the playground, on trips, down the street, and in the home.

It magnifies Influence.

This leads to the second consideration why teachers should know their pupils individually. Personal knowledge gives the teacher peculiar influence over pupils. We all like to be remembered and known by name. The teaching relation is at its full power only when there is a real person at each end of it. In this connection teachers may well ponder the incident in which

Jesus removes the doubt of Nathanael as to whether any good thing could come out of Nazareth with those words of personal knowledge, "Before Philip called thee, when thou wast under the fig tree, I saw thee." It is almost sure to be the case that the pupils who give us trouble are those we do not really understand.

Caution concerning Knowledge of the Pupil.

A caution must be given also in connection with this knowledge of the individual pupil. Nobody would question the position probably that the school exists for the pupil, not the pupil for the school. But the school exists for the pupil in his inherent rationality, not in his caprice. So in knowing and sympathizing with the individual pupil, we must not forget nor neglect to subject his whims to the law of the school. We know him not to weaken him by indulgence, but to strengthen him by incentives.

The teacher must also know the general pupil, that is, the laws of development common to all immature minds. At this point he draws upon all the sciences of young and adolescent life, particularly the science of psychology. Upon this point we will reserve further remark until the succeeding chapter.

The Ability to Teach.

Knowledge of the subject does not make a teacher, knowledge of the pupil does not make a teacher. Both of these combined do not alone make a teacher. There must also be the teaching ability. This is a rather complex qualification which we must undertake to analyze, inquiring first concerning its source.

Its two Sources.

The ability to teach has its rise in two sources, viz. heredity and training. The great teacher is born; he

is also made; but his nature gifts are more important than his acquisitions through training. A born teacher may succeed without training; a trained teacher cannot succeed without native gifts. There are many born teachers, technically untrained, doing successful work to-day; there are no successful made teachers. The best training can do is to add an increment of power to native gifts; it can never supply the lack of those gifts. Pestalozzi the great was nodding when he wrote that instruction must be mechanized. The teacher's native gifts include such things as tact, sympathy with young life, resourcefulness, a sense of humor, and buoyant temperament. Such things training at most can cultivate, but it can neither give them nor take them away.

What Plato said of oratory can be said of teaching: "The perfection of oratory is, or rather must be, like the perfection of all things, partly given by nature; but this is assisted by art, and if you have the natural power, you will be famous as a rhetorician, if you only add knowledge and practice, and in either you may fall short." (Phædrus 269 D.) Young persons without such native gifts should be discouraged from undertaking the profession of teaching. But given them, in the interest of fullest efficiency a careful training should also be added.

The training of the teacher consists essentially in the knowledge and use of method. Having just indicated the superior importance of hereditary gifts, I shall not be misunderstood now if I have a good deal to say in defence of a rational method of instruction. This is

one of the weakest spots in both our theory of education and our school practice.

Knowledge of Method.

Every teacher should know and use a scientific method of instruction. And this for two reasons that those who inveigh most against method cannot gainsay. The first is, some method is unavoidable. In the last analysis, method is but the way of doing a thing, and all teachers, whether trained or no, have and must have some way of setting about their work. In this sense, to cast out method in teaching is to cast out teaching itself. The second reason is, since method of some kind is inevitable, we ought to use the best available. The teacher must not excuse his inertia in discovering right method by supposing there is no right method to discover. When you confess failure to yourself in your class-room work, then is the time to reëxamine your method.

General and Special Method.

Now concerning method in teaching: in the large there are six kinds, which I will enumerate in pairs. General and special method go together as the first pair. General method is an account of those principles in teaching applicable to all subjects alike; special method is an account of those principles in teaching applicable to only one subject, as, for example, arithmetic. The Herbartian "formal steps in teaching" is the most notable illustration of general method. There is great need to-day of their revision: first, to bring them more into connection with the mind's real mode of acquisition, and second, to enable them to reach the feelings and will as well as the intellect.

Inductive and Deductive Method.

The second pair of methods is the inductive and the deductive. Inductive method moves from the particular instance to the general principle, as in Harper and Tolman's "Cæsar." Deductive method moves from the general principle to its particular application, as in geometrical proofs.

Empirical and Scientific Method.

The third pair of methods is the empirical and the scientific. The empirical method in teaching is due to imitation, habit, tradition, accident, or experiment. 'Tis pity 'tis so common. The teacher's golden rule has been said to be, teach unto others as others taught unto you. Scientific method is due to the union of the law in the subject and the law in the mind; it is based on the experience of the race and the applied sciences of man. Empirical method is based on limited observation, is limited in its application, and is uncertain in its conclusions; scientific method is based on wide observation, is practically universal in its application, and is practically certain in its conclusions.

From this cursory review of the kinds of method it is evident that teachers need to know something about both general method and special method in their subjects; about the relative value and place of the inductive and deductive methods; and about the nature of scientific method. It will also be noted that these kinds of method are not intended to be distinct from each other; the following pages, for example, intend to include certain things about general, inductive, deductive, and scientific method.

We have said that the knowledge and use of method in teaching is one of the elements, though secondary

to native talents, in the ability to teach. It remains here also to add certain cautions about the use of method in teaching. First, method is the letter of instruction; the teacher is its spirit. Second, method should be felt, but not seen, by the class. It is like the skeleton in the body, indispensable as an invisible support but grewsome in its bareness. Third, method must be varied, however good. The best method will succumb to regularity and monotony of procedure. The teacher's ingenuity is taxed to vary the method unfailingly at the right time and in the right way.

Cautions in the Use of Method.

Perhaps the least said about the teacher's character, after naming it as essential, is most said. Let it be sane, decisive, stable, honest, and righteous. Sanity of character means proportion; decisiveness of character makes the teacher an individual, whose position can be understood and has to be reckoned with; stability of character raises him above solicitation; honesty of character hesitates not to condemn the poor work of pupils whose feelings he would like to shield; and righteousness of character sets eternity in his heart. Society will always have its teachers; their character should match the permanence of their office.

The Teacher's Character.

"The teacher lives forever. On and on
Through all the generations he shall preach
The beautiful evangel; — on and on
Till our poor race has passed the tortuous years
That lie fore-reaching the millennium,
And far into that broad and open sea

He shall sail, singing still the songs he taught
To the world's youth, and shall sing them o'er and o'er
To lapping waters, till the thousand leagues
Are overpast, — and argosy and crew
Ride at their port."

Problems

1. Other Desirable Qualifications of the Teacher.
2. The Power of Personality in Teaching.
3. The Qualities of Jesus as Teacher.
4. The Characteristics of the Great Historic Teachers.

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Barnett, Common Sense in Education and Teaching, ch. XII.
Fitch, Lectures on Teaching, pp. 9 *et seq.*
Hinsdale, Teaching the Language Arts, ch. XIX.
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Tarver, Debateable Claims, chs. VI and VII.
White, School Management, pp. 17–47.

CHAPTER V

THE CONTRIBUTION OF PSYCHOLOGY TO A SCIENCE OF EDUCATION

Status of the Question.

THIS is a question now nearly a century old. It was present at the birth of modern pedagogy in 1824 when Herbart wrote his "Psychology as a Science." During recent years it has passed through a polemic stage, led by the attack of Professor Münsterberg upon the services of experimental psychology to the teacher. That war of words succeeded in sifting rather thoroughly the values of psychology for education, and establishing some firm results. To-day the question has passed into the practical stage; teachers are using their psychology and psychologists are making contributions to pedagogy.

Looking backward to our last chapter the discussion in hand aims to suggest why the teacher should know the general pupil, as a part of his essential equipment. And looking forward, the following pages of this book are our real answer to the question in hand. It remains only to say here some of those general things which there will be illustrated in more detail.

The Uses of Psychology for the Teacher.

The uses of psychology for the teacher may be classified under three general heads, viz. it helps to give him knowledge of his field, it helps to give him the power that comes from such knowledge, and there are certain

personal gains. Let us consider each of these in succession.

The Knowledge of his Field.

Psychology helps to give the teacher a knowledge of his field. His field is consciousness, a developing self-consciousness, and his work is the natural forwarding of the growth of consciousness. It is the business of the psychologist to describe and to explain this same consciousness, to provide scientific knowledge concerning that mental life whose stimulation is the province of the teacher. From the psychologist then the teacher can get information concerning the nature of his field. It is always to be said that this information is scientific, that is, descriptive and explanatory, analytic and causal; it is not in its first form applicable to any art, least of all the personal art of teaching. In the first instance it is just scientific knowledge that the psychologist provides the teacher, without telling him what to do with it, or how to do it. The omega of psychology is but the alpha of pedagogy. The descriptive and explanatory conclusions of psychology must, for the sake of service, be transformed into the applicable and practical principles of education. I will not illustrate this transformation of psychological science into pedagogical art at this point, as almost every later chapter in the book attempts to do this very thing. The teacher who is asked to cultivate the intellect, the feelings, the moral and religious nature of pupils can probably do it better if he has some definite knowledge at the start of what these things may be; certainly he will be somewhat more at ease about his work.

There are five things in particular that will show how

psychology helps to give the teacher a knowledge of his field. The first is concerned with the foundations of the curriculum. A teacher who reads such a volume as that of Dr. Harris, "Psychologic Foundations of Education," gets a certain view of the origin, nature, meaning, and unity of the curriculum. Such knowledge brings him into better adjustment with his field of work, especially if he is stimulated to read further.

The Foundations of the Curriculum.

The second is the stages of mental development. The teacher who reads the works of J. M. Baldwin, Hall, Preyer, Taylor, Chamberlain, Warner, King, and Kirkpatrick, gets a certain view of consciousness in its growth, the so-called genetic view, that at once brings him into closer touch with the life in his schoolroom, and permits him to see that the whole of the human race is peering at him through the eyes of a child.

The Stages of Mental Development.

The third is the description of individual differences. This matter will in time receive more attention from the psychologists. Already we are being told in an enlightening way of the sensory and the motor types, of the language and the mathematical minds, of the types of imagination, of the differences between boys and girls, of the variations in memory, etc. Such work will help us in knowing the individual as well as general pupil. In illustration I will quote one passage: "To a teacher interested in psychology, not as a bookish doctrine, but as a thing of flesh and blood, a child who cannot learn to spell, should be regarded as a rare and inviting individual who may not be dismissed until he has yielded up the secret of his defective memory." [1]

Individual Differences.

[1] Stratton, "Experimental Psychology and Culture," p. 184.

Special Topics.

The fourth is information concerning certain special topics of interest and value to the teacher, such as fatigue, the inheritance of mental traits, the distribution of mental power in different subjects of the curriculum, the health of children in the different periods of their development, the fears of children, play and games, etc. The modern treatment of all these special topics goes back to the racial and biological background of child-life, and, as the scientists say, interprets ontogeny for us through phylogeny.

Laws of Mind.

Then, fifth, there are the general laws of mind, in accord with which all successful work of the teacher must be, whether he knows them technically or not. Only if he knows them he is less likely to run counter to them. There is the general relation of mind to body, the necessity of percepts for concepts, the laws of memory and association, the way a habit is formed, the kinds of imagination, how to reach a feeling, the indirect way of forming the will, and the countless other things that are the alphabet of the mind's mode of functioning. This is the field of general psychology proper and from it the teacher has received most directive assistance.

The Power of Knowledge.

Coupled with the knowledge of his field is the second general use of psychology for the teacher, viz. it helps to give him the power that comes from such knowledge. Since Bacon we are ready to assent to the proposition that knowledge is power. He meant by the maxim that knowledge of nature is a means of power over her. All modern science and the consequent comforts of

living are a tribute to the truth of this utterance. It is no less true that a knowledge of mind is a means of power over it. In each case the power is dependent on the use of the knowledge. For the profession of teaching to pass into its comforts and even luxuries, not of material but spiritual values, it is only necessary that the teachers, or some one for them, point the way from theory to practice: from the knowledge of the nature of consciousness to the right way of dealing with it. Psychology describes how the mind learns, it is the business of teaching to cause the mind to learn; psychology describes how the mind appreciates beauty, it is the business of teaching to cause the mind to appreciate beauty; psychology describes how characters are formed, it is the business of teaching to assist in the formation of character; psychology describes the nature of the religious sense, it is the business of teaching to stimulate the religious sense. Thus psychology is one of the sciences of which teaching is the art.

He who has most tempered American educational expectations from psychology, especially of the quantitative, laboratory kind, Professor Münsterberg, has also written: "Teachers ought always to have had confidence in a sound qualitative psychology. A serious understanding of the mental functions certainly will help them in their educational work." [1] And the head of another large psychological laboratory, a man promoting exact research in the field of mind, Professor Cattell, reviewing the article of Professor Münsterberg,

[1] *Atlantic Monthly*, February, 1898, "A Danger from Experimental Psychology."

writes in a way commanding general assent, "I think that psychology has much the same relation to the profession of the teacher as physiology has to medicine." [1]

There are two things in particular that will show how psychology helps to give the teacher this power in his work. The first is, the laws of mind furnish the principles of educating. If physiological psychology, for example, discloses as a law that instincts ripen and decay, pedagogy demands that desirable instincts as they come on be fixed into habits before they pass away. If general psychology, to take another instance, discloses as a law that the pursuit of an interest is a factor in individual development, pedagogy at once demands that school work at some point discover to a pupil his real interests. Probably no American psychologist is more cautious in his methods or temperate in his conclusions, or critical of psychological extravagances than Professor Jastrow, who, reviewing Hall's "Adolescence," writes, "Thus psychology — properly interpreted as the study of the evolution of mental function — at once appraises the value of mental traits, and in recovering the trade-routes of the past, points to the most profitable highways of the future. Psychology of this type and temper remains the supreme guide of education." [2]

The Principles of Educating.

Direction to Native Tact.

The second thing is that, while not taking their place ever, nor the place of practical experience, psychology gives native tact and skill their best opportunity. Sympa-

[1] *Psychological Review*, 1898, p. 413.

[2] Jastrow, "The Natural History of Adolescence," *Popular Science Monthly*, March, 1905.

thy and insight, these are indeed inborn and indispensable for the teacher. However great they may naturally be, knowledge will make them greater. They are original, they are primary, knowledge of all psychology cannot take their place, but they are most efficient when knowledge is their guide. To understand pupils opens up channels for sympathy. "A Pheidias does not despise learning the principles necessary to the mastery of his art, nor a Beethoven disregard the knowledge requisite for the complete technical skill through which he gives expression to his genius. In a sense it is true that the great artist is born, not made; but it is equally true that a scientific insight into the technics of his art helps to make him. And so it is with the artist teacher." [1]

Personal Gains.

It was said that the third great use of psychology to the teacher was certain personal gains. In the first place it is to be remarked that, as in the case of other sciences, here is a body of knowledge that is worth while for its own sake. Since the importance attached by Plato and Aristotle to knowledge as such, to a vision of the truth anywhere, only a practical age has demanded applications. Ours is eminently a practical age, due in scientific realms to the biological recognition that consciousness is primarily teleological. In such a time it is preëminently good for us to love some knowledge for its own sake and not because we are planning to use it to-morrow. This attitude makes the investigator's life worth while. He does not know and does not care whether what true thing he finds will prove

Truth for Truth's Sake.

[1] McLellan and Dewey, "Psychology of Number," p. 6.

useful. He is seeking the truth because he loves it, and in the light of the truth he finds the generations walk. So is the teacher who, according to his opportunity, is becoming a master of mind for its own sake.

The Analytic Power.

In the second place, and coming to practice again, psychology develops an analytic power in dealing with mental material of immense service in the work of clear teaching. No teacher can attain a first-rate success who is without the ability to introduce sharp distinctions into a complex whole. His subject must lie in his own mind in its variety as well as in its unity. Step by step, he must initiate his pupils into its mysteries, ending up with an illuminating total vision. Similarly psychology leads the teacher to view mind as a unity with a variety of functions. He gets the notion that is the way reality is; he is led to apply the notion to his own subject. The making of close psychological distinctions clear to himself is an aid to him in making similar distinctions in his subject clear to his class.

The Rationalizing of Experience.

In the third place, psychology aids the teacher in rationalizing his experience. The light that it casts permits distinctions to be drawn in the daily occurrences between the haphazard and the real, the non-essential and the essential. Values begin to get adjusted in the teacher's view of his class, and the sporadic is distinguishable from the racial. Through psychology the teacher's work will continually have a diagnosis of pupils in the background, and the teacher himself will increasingly become an expert physician of mind.

An Educational Critic.

And the fourth personal gain is deliverance from the latest educational devices. Through psychology every

teacher is to some extent his own educational critic. He does not have to wait for editorial expression from his favorite educational periodical; he sees for himself the limitations and the possible services of a new pedagogical method. He no longer discards the old because it is old, nor adopts the new because it is new; he keeps and accepts both old and new according as they are grounded in the laws of the constitution of mind. Of course all these personal gains are relative to the amount of time the teacher can give to his psychology, his ability in it, and his capacity to see its bearings on practical problems.

Cautions.

This discussion must be concluded with certain clear cautions concerning the use of psychology in teaching, already hinted at indeed in the foregoing. The first is that it is the psychology of the growing, not the grown, mind that teachers most need to know. The proportions of adult and youthful bodies do not vary more than those of adult and youthful minds. A besetting mistake of the teacher is to make pupils take his own adult point of view instead of making himself take their youthful points of view. Pause, gentle and faithful teacher, as you read, and think three minutes of how you can take your pupils' points of view.

The Growing Mind.

Practical Psychology.

The second caution is that teachers most need practical, not theoretical, nor experimental, psychology. They need not so much the theoretic account of the nature of mind as the practical way of dealing with it which this theory suggests. To the ambitious teacher with high standards to attain, the profession is exacting,

and the time allottable to psychology, though brief, must count. Drop the psychology any page of which you light upon does not tell you something worth while.

Exact Information.

My third caution is that a little exact statistical investigation among your own pupils is of more value to you than much reliance upon respected educational opinion. Is it true that some of your pupils have mathematical, and others linguistic, minds? If so, is it true that the boys predominate among the former and the girls among the latter? Is it true that your pupils are working for marks, prizes, and promotion rather than for the sake of the subject and interest in study? Such investigations make your psychology concrete; they give the sense of reality to what you read in the books, and one such usually leads to another. Remember that the opinions you read are themselves based on just such investigations, or some lesser foundation.

The Teaching Attitude.

After saying this, my last caution is particularly needed. It is, the teacher must not take the psychological, which is the analytic, the simply observing and explaining, attitude toward his pupils, — they are not specimens. The sweet and beautiful soul of Helen Keller has been made to feel that the psychologists too often regard her as only a wonderful subject for investigation and explanation. In contrast the teacher's attitude is always real, vital, sympathetic, personal. Whatever psychologizing the teacher does in his class room must be in the background of his consciousness; not once must a single pupil feel himself impaled and

subject to the intellectual analysis of his teacher. The teaching relation permits the use, but never the discovery, of psychological truth.

It is not too much to hope that through the knowledge and use of psychology, and the kindred human sciences, the regeneration of education is to come.

Problems

1. The Sciences Important for Educational Practice.
2. The Investigation of Social School Problems.
3. The Use of Statistical Methods.
4. The Acquisition of a Working Knowledge of Psychology.

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CHAPTER VI

THE THEORY OF FORMAL DISCIPLINE

No extended reference to the science of education, and no discussion of the applications of psychology to teaching, must fail to-day to take account of the pressing question of formal discipline. To consider it here will give us the right point of view from which to approach the later inquiries in this volume, and any conclusions there reached are to be interpreted in the light of this discussion. The immediately following pages cover a pedagogical battle-ground; the war has been waging for nearly a generation now, and the victory is not yet won. What is the question itself?

The Theory Stated.

If we turn for an authoritative answer to Professor De Garmo's article on "Formal Culture" in Baldwin's "Dictionary of Philosophy and Psychology," we find the following definition, "The doctrine of the applicability of mental power, however gained, to any department of human activity." Perhaps the idea would be expressed should we say, the theory of formal discipline asserts that mental power developed in one subject is usable in any other. Once sharpen the intellectual axe and it is good for cutting any kind of wood; once develop mental muscle and it is good for lifting any burden; once go through the gymnasium for the mind and you are ready for the tasks of life.

Its Past and Present Standing.

The historic and contemporary repute of this theory of education needs little comment. Perhaps we were all reared in its atmosphere. It has had a long, dignified, and conspicuous place in educational theory, from the perfection in formalism of the mediæval great systems of knowledge to the latest modern opposition to the introduction into the curriculum of "fads, frills, and fancies." It has been one of the ideals of education. Those old ones whom we call the schoolmen had it, the Latin, Greek, and mathematics of the English schools and universities presuppose it, the German *gymnasien* intend it, the three R's and the four walls of the district and elementary schools suggest it, and all that advocacy of education as a training for the mind implies it. The theory has the widest prevalence in teaching circles to-day; practically all the teachers commit themselves to it one way or another, and speakers on educational programmes may usually be counted upon to defend such subjects as grammar, spelling, arithmetic, the ancient languages, etc., because of their "superior disciplinary power." We may even go further and say, counting heads alone, most educational theorists imply, if they do not directly affirm, the truth of the doctrine. Some of the leaders, however, who have given especial attention to the matter, are taking new positions.

Objections to the Theory in its Historic Form.

There are certain weighty and not wholly answerable arguments against the theory in its historic form. The first is, it rests upon an antiquated psychology, the so-called "faculty psychology." According to this psy-

An Antiquated Psychology.

chology the mind was composed of so many faculties or powers, such as perception, memory, judgment, reasoning, etc., and in accord with this notion of mind the theory of formal discipline held that if a faculty were once trained, it was good for any service. Thus the language drill was said to be good in training the memory, mathematics for the reasoning power, etc. At this point it is serviceable to our later discussion to note that the old faculty psychology and the historic theory of formal discipline founded upon it did not admit of the possibility of training one faculty, for example perception, by training another, for example reason; that is, it was not the mind that was really trained, but only its faculties. To-day in scientific circles the functional psychology, affirming the unity of mind as it adjusts itself variously to different situations, has supplanted the former faculty psychology. Functional psychology, affirming that mind is developed through adjustment to given situations, knows nothing of a mental power thoroughly detachable from the place of its origin and perfectly applicable to a different set of conditions.

Mistaken Analogies.

Second, the historic theory rests upon mistaken analogies. Axes and muscles make mechanical adjustments to their objects; the mind makes vital adjustment. In a mechanical adjustment there is always a dualism, the axe and the wood it cuts are two things. In a vital adjustment there is always a unity, the mind is fed by the problem it solves and turns with relish to similar problems. To each distinct situation the reactions of mind and brain are unique.

Third, historically the doctrine was rather taken for granted than scrutinized, criticised, and accepted. When modern knowledge and life grew away from the mediæval curriculum, it became necessary either to incorporate the new knowledge into the curriculum or to justify the continuance of an unmodified curriculum; the theory of formal discipline served the purpose of this justification; it has never been supported by exact evidence. Assumed Truth.

Fourth, the wide prevalence of the theory to-day in its historic form is due mainly to "social heredity," that is, to imitation and suggestion. The busy teachers who hold and defend it have not first doubted, then examined, then accepted it; to them it is like Antonio's feeling of sadness, — how they found it, caught it, came by it, what stuff 'tis made of, whereof 'tis born, they are to learn. "Social Heredity."

Fifth, it contradicts common experience. A man's judgment is notoriously unequal in familiar and unfamiliar matters. He may be as quick as a race-horse in matters, say, of Biblical criticism, and as slow as an ox in the philosophical problem of immortality. It is a saying with some jurists that a man trained in exact scientific and mathematical methods cannot make a great lawyer where the issue is not one of certainty but of probability. Men may be grouped according to their efficiency in certain subjects, and efficiency in one field does not mean efficiency in another. There is a logical fallacy, *argumentum ad verecundiam*, which consists in appealing to authority outside of the field in question. The same boys may be Against Common Experience.

better in their mathematics than in language, and the same girls may be better in language than in mathematics. Here the mental power in one subject is not the same in another, the "all 'round mind" is a myth.

Against Experimental Evidence.

Sixth, if more were necessary, the theory in its historic form contradicts experimental evidence. Try your mathematical reasoners on a series of life-problems, as how best to spend one's money, one's time, choose one's associates, etc., and be surprised that some of the first are last and some of the last are first. Try to improve your own power for remembering anything now difficult to you, such as names, dates, poetry, by committing nonsense syllables. Or, shorter, imagine yourself now testing your judgment, admittedly good in matters of teaching, on the relative merits of two horses or the relative values of two farms. If still unconvinced, read some of the experimental results referred to in the list at the close of this chapter, and you may end by almost, if not quite, agreeing with the results of the bold and acute Thorndike as he writes, ". . . there is always a point . . . beyond which the influence of the training has not extended."[1] It would be correct to say that all the theorists who have investigated the question reject the doctrine in its historic form.

The Proposed Modification.

Is there no truth at all then in the theory, but all mistake and delusion? I think not. These objections do demand that the historic form of the theory be modi-

[1] Thorndike, "Educational Psychology," p. 91.

fied; they do not demand that it be given up *in toto*. The modification necessary would appear, as it seems to me, in the following statement of principle, viz. mental power developed in one subject is applicable to any other in direct proportion to their similarity. Though stated in exact mathematical form, it is not possible, because of the complexity of the subject, to demonstrate its exact truth; but that it has a considerable degree of probability can be shown.

The principle means, the greater the similarity between two subjects, the greater the applicability of mental power developed in one to the other; the less the similarity, the less the applicability. Now it requires no great amount of common insight or metaphysical acumen to see that, given the same person, with the same eyes, ears, hands, and brain at work, any two subjects, situations, or activities are in some respects similar, and they are also in some respects dissimilar. This means there is always some mental power transferable from subject to subject, though it may be infinitesimal if the subjects are widely dissimilar; also that there is never such transfer without loss, though the loss may be negligible if the subjects are very similar. This is the meaning of the proposed modification; it holds there is an element of truth in the old theory of formal discipline, but not so much truth as its adherents have supposed. Perhaps the simple statement of the proposed modification carries conviction in itself without argument; if so, the reader may pass at once to the next chapter. The rest of us must tarry with the defence of the modifying principle.

To show Transfer of Function.

We have to show that the historic theory of formal discipline is right in saying that what we may call in modern terms a transfer of function is possible, but wrong in saying the transfer is possible without loss. The presuppositions of our defence are a unitary consciousness, its functional unity with its object, and the so-called doctrine of localization of function in the brain, whereby specific portions of it are given over to specific sensory and motor processes.

Similarity of Subjects.

To show first, there is some transfer of function, that is, there is some transmission of power developed in one situation to another situation. Beginning from the objective side of the process, it is to be observed, first, that any two courses of study or activities are in some respects similar, ranging from practical identity to almost total dissimilarity. Two courses in language, or literature, or mathematics, or history, have many points in common, while two courses in literature and mathematics, in grammar and history, in spelling and nature-study, have many points of dissimilarity. Because of this similarity in the objective situations, always present in some degree, we should expect a corresponding transfer of function.

Common Experiences.

Second, this transfer of function between similar subjects is exactly what common experience verifies. The boy good in mathematics is usually good in physics, and later in astronomy. The boy good in nature-study is usually good in botany, biology, physiology, and later in psychology. The girl good in English is usually good in French, and, as the studies should perhaps be arranged, later in Latin. The possibility of this transfer

of function between similar activities is the basis of all professional school work, where moot courts make the future lawyer, dissections the future doctor, homiletics the future minister, class practice the future teacher, economics the future business man, etc.

Identical Cerebral Elements.

Third, viewing the process from the subjective side of mind and brain, there are always some identical elements involved in any two mental occupations or brain functions. The brain, despite localization of functions, acts as a unity. Its unitary action makes possible its service as the organ of a unitary consciousness; a brain divided in its action means a multiple personality. Flechsig states the principle that "cerebral energy, like water, tends to find its level." It means that when an activity has fatigued its own portion of the brain, its continuance withdraws energy from, and so fatigues, other portions. However dissimilar the situations or activities, the association centres would be active in each, perhaps also the sight, hearing, speech, and motor centres. This means that training in one situation makes performance easier in another, because of the identical brain elements involved.

General Instincts

Fourth, it may be that nature has endowed the nervous system with general instincts, and that man may endow his own system with generalized habits. If so, the transfer of function would be another case of the same type. To take the case of imitation as a general instinct. Children early begin to show the instinct of imitation. Perhaps the instinct is particularly set going by stimuli of a rhythmic or playful character. But the point is that the tendency to

imitate seems independent of any particular stimulus or class of stimuli, but is ready to go off at any imitable model whatsoever. Do or say anything that you choose, and your three-year-old child will usually imitate you. Here apparently is what we may call a generalized instinct. Similarly it is impossible to say in advance what particular things will arouse the child's instinct of fear or pugnacity. Apparently they exist in the nervous system as what we may call generalized racial habits.

and Habits.

What nature has done for the race as generalized instincts, man can in a way do for himself as generalized habits. There seem to be habits of doing as well as habits of deeds. Thus one may be in the habit of disagreeing with the expressed opinion of another, whatever that happens to be. Or one may inadvertently fashion a wrong plural with "s," as "foots." Professor Royce[1] instances "fickleness" as a generalized habit. All of our higher types of thinking seem to indicate the presence of a basic habit of mind, and the prose style of an author, regardless of the subject, bears the stamp of certain generalized forms. Once to have written a book seems to leave the mind stocked with vacant forms of expression ready to be filled with words and meanings appropriate to the next discussion. Once to have read an author consecutively stocks the mind with his forms of style, which almost inevitably betray their presence in one's own next writing. These all seem to show generalized habits. There is a good deal of uncertainty yet attaching to generalized instincts and habits; they need a careful monographic study. But

[1] "Outlines of Psychology," p. 69.

if the nervous system does indeed admit of the formation of such generalized tendencies of discharge, then we may legitimately conclude that habits of voluntary attention, doing one's duty, promptitude, accuracy, industry, and the like, once formed in any connection, are at least somewhat serviceable in other connections.

Experimental Evidence.

Fifth, the experimental evidence is clearly in favor of a partial transfer of function. Skill developed in one hand is partially transferable to the other hand, and even to the feet. The increase in sensitiveness of the skin to two compass points felt as two developed at one place by practice is partially transferable to other portions of the body, especially to corresponding portions on the other half. The strength developed by exercise in the right arm of the blacksmith goes over in part to the left also, and the man using his arms in rowing is also giving strength to his legs. Some of these results may not be precisely pertinent to the issue. For details I must refer the reader to the literature of the subject, and be content here to quote the conclusion of one investigator. "The real question is not, 'Does improvement in one function alter others?' but 'To what extent and how does it?'

"The answer which I shall try to defend is that a change in one function alters any other only in so far as the two functions have as factors identical elements. . . . By identical elements are meant mental processes which have the same cell action in the brain as their physical correlate." [1]

[1] Thorndike, "Educational Psychology," pp. 80, 81. Cf. the literature reviewed by Thorndike in this connection.

To show Loss in the Transfer of Function,

The second part of our thesis, that there is always loss in the transfer of function proportionate to the dissimilarity of the two given situations, will need only brief defence. All the arguments above against the theory of formal discipline in its historic form have place here. Also, any two subjects or activities are dissimilar in some respects. This means there are always some non-identical brain cells involved in any two functions; a new situation always requires a new adjustment which is not so easy as an habitual one. Thus there are limits to Flechsig's principle. Not all cerebral energy can be drafted off in one direction, as all the water can pour through a leaky bucket. However fatigued you may be in one subject, you are not quite so much so when another is taken up. The boy half asleep over his Cæsar may suddenly awake with his algebra. You can never use in one situation all you have gained in another. The localization of brain paths responsible for specific habits also means that transfers are costly. Even the generalized habit is never quite so applicable in another subject as in the one in which it was formed.

Watch yourselves, teachers; nobody has the habit of promptness developed stronger than you, developed in you by attendance upon your school duties; but how are you as to promptness when it is a question of attendance upon teachers' meetings, committee meetings, appointments, and church? I once heard a prominent teacher of mathematics give as his excuse for keeping the company waiting for his paper half an hour that he had misread the time on the programme; then he

presented his paper in defence of mathematics as affording superior training in accuracy. The worst of it was nobody seemed to notice the incongruity.

Practical Conclusions.

There are certain practical conclusions from this largely theoretical inquiry which we must not miss. The first is, there is an element of truth in the historic theory of formal discipline, but it is not the whole truth.

The second is, formal education is an uneconomical way of fitting for life, as there is always loss in the transfer.

The third is, the economical way of educating is to put the life situations and the life occupations into the school. This would mean less of the formal studies like grammar and arithmetic, and more of the real studies like nature work, literature, and history. As Professor O'Shea observes in his illuminating discussion of formal discipline, "An individual should be required to perform during his learning period those activities which he will be called upon to perform most often in maturity." [1]

The fourth is, there should be in the curriculum a prescribed culture element for leisure in life, and an elective practical element for work in life. As members of society are men as well as workmen, the curriculum should be cultural as well as utilitarian. The individual's power is developed through pursuit of his interest; such a curriculum will at some one point, or perhaps two, reveal the pupil to himself.

And the fifth is, both formal and real studies must

[1] "Education as Adjustment," p. 265.

not rely solely on their habit-forming power, but should also aim to give ideas and principles of action. When your habit of promptness will not take you to a committee meeting on time, the principle of respect for the time of others will. Formal logic, to take a typical instance, makes you think clearly in it; it does not as such make your thinking clear everywhere; it does give you the idea that clear thinking is worth striving for everywhere. Or again, West Point makes brave soldiers, not by the cowardly habits of hazing, surely, but by the instillation of the idea of bravery, facing the foe, standing by your guns, die fighting, etc. In the end, effort is the secret of attainment; once the idea is firmly lodged in pupil or teacher, "I will not go down in defeat," "I will not lower my standards," "I will be just to myself and merciful to others," or the like, and a worthy issue is assured.

Summary.

Here we conclude our introductory sketch of a science of education. We have seen the possibility of a normative science of education, the indispensable part that the history of education plays in the formation of such a science, the comprehensiveness of the educational ideal, the qualifications of the teacher regarded as essential in the fulfilment of his task, the many services rendered him by psychology, and the modification necessary in the historic theory of formal discipline. The general impression left by the discussion perhaps is that the science of education exists *non in esse sed in posse.*

The Coming Discussion.

We must now turn from the theory of the science of education to such practical illustrations as we are able to give. The remainder of the book must consider what

the education of children and youth ought to be. Its parts are suggested by the threefold nature of the mind, viz. the intellectual, the emotional, and the moral, and by the relationship of mind as a unit to divinity, the spiritual. The respective ideals of these parts are the knowledge of the true, the appreciation of the beautiful, the willing of the good, and the experience of the Divine.

Problems for Further Study

1. The Faculty Psychology.
2. The Functional Psychology.
3. Generalized Instincts and Habits.
4. The Localization of Function.

References on the Theory of Formal Discipline

Bain, Education as a Science, pp. 139–142, 366–373.
Bain, Practical Essays, IV.
Baker, "Educational Values," *Proc. N. E. A.*, 1895.
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Lewis, "Formal Discipline," *School Rev.*, 1905.
Monroe, Text-book in the History of Education, ch. IX.
O'Shea, Education as Adjustment, ch. IV, §4; chs. XIII and XIV.
Thorndike, Educational Psychology, ch. VIII.
Tompkins, Philosophy of Teaching, pp. 265–267.
Youmans, Culture demanded by Modern Life, ch. I.

PART II

INTELLECTUAL EDUCATION, OR EDUCATING THE MIND TO KNOW

INTRODUCTION

The General Nature of Intellectual Education.

Intellectual education may be defined as the development of the mind's power to know the truth. The intellect is that instrument of consciousness whereby we get knowledge. And knowledge, praised by prophet, poet, and sage alike, we may think of as content of consciousness descriptive of fact. The great goal and object of knowledge is truth; it is the truth that we know, and truth we may think of as the relationship of harmony between the subjective thought and the objective fact. Where the truth is known there is no conflict between what is thought and what is so. It is the mind that knows the truth; the knowing is a function of mind; the truth is that which occupies the knowing, as its object. This distinction between knowledge and truth may be briefly stated in the form, knowledge is the subject of truth, truth is the object of knowledge.

Its Two Primary Aims.

From these deep and vague considerations there emerge the two primary aims of intellectual education; viz. to develop the mind's power to know, and in some measure to acquaint it with the truth. The former aim develops a capacity, the latter aim indicates an acquisition. Of these two aims the former is doubtless more important to realize in school; the power to pursue the truth through life is better than to begin life with a

certain quantity of known truth. Too frequently the latter aim has eclipsed the former; knowledge was communicated, but the power to know remained dormant.

Its Order.

Now there are certain fairly marked stages in the development of the mind's power to know — a beginning, a long middle, and an end. These stages are not separable from each other by years and days; they merge gradually into each other, and in the growth the earlier stages are carried forward into the later, even as man's body bears about it the signs of its great past. If we should name the successive stages in the intellectual development of the race or the individual, they would appear in some such order as this: sensation, perception, memory, imagination, conception, judgment, and reasoning. Following perception there is apperception, which is rather a process of, than a period in, intellectual development. Sensation, then, is the alpha, and reasoning is the omega of knowing. To assist the mind through each one of these natural stages of the development of its power to know is evidently the function which intellectual education has to discharge. Here, then, too, we find the order our discussion must follow, beginning with sensation.

CHAPTER VII

OPENING THE WINDOWS OF CONSCIOUSNESS

UNDER this figure we mean educating the senses. To begin with, the windows of the child's mind at birth are almost all closed; its senses are but just operative, and not much of the great world can make its appeal to consciousness and deliver its messages. The educated mind needs to have all the windows open.

Meaning of Educating the Senses.

Under the phrase, "educating the senses," a misconception frequently lurks. The phrase does not mean training the sense-organs to efficiency. This is not our work, but nature's, and if nature has not done it, not the teacher but the oculist or the otologist must assist her. It often takes nature several generations to remove color-blindness or deafness. But the phrase means educating the mind to the best use of the sense-organs. The man who, in popular language, has his senses trained is he who has an attentive appreciation of sense-reports, understanding their significance. He sees and hears what escapes the usual eye and ear through inattention or lack of discrimination. It would marvellously surprise any of us to have the consciousness of the naturalist for five minutes in the midst of the wood. We lack his interests, his understanding of all the signs, and his discrimination between this and that.

Why educate the Senses?

Why educate the senses? Many answers might be given to this question, a few of which will deepen our sense of the importance of beginning intellectual education at the bottom. First, then, thereby habits of observation, alertness, wide-awakeness, are helped to be formed. There is a great difference between the mind eager to learn from every new environment and one that shuts itself up like a clam in every new situation. We are primarily meant to look outward and not inward, to be a friend and not a stranger to our world. As a great physicist once remarked to me, "It is necessary that pupils, at some time, learn to observe something, and minutely."

Habits of Observation.

Broader Intelligence.

Second, thereby richer knowledge and a broader intelligence are made possible, a richer knowledge for sensations are the stuff from which knowledge of the external world grows, a broader intelligence for it looks out upon every expanse of nature that is allowed. Make the foundations in sensation broad and deep if the superstructure of knowledge is to be reliable and majestic.

Natural Beginning of Science.

Third, thereby the beginning of any objective science is made natural, easy, and interesting. And the child lives in the realm of the objective. An introspective child is morbid, a child desiring to be taken out of itself is an anomaly. The knowledge of the external world precedes that of the internal, things engaging us before the self. The child wants his natural history; he needs and wants the acquaintanceship with things, and he can get these only through the senses.

Fourth, thereby a foundation is laid for a future

development of an æsthetic taste and the appreciation of the beautiful. Unlike truth, beauty makes a sensible appeal: she clothes herself with garments of the physical world, she is visible or audible. No lover of beauty has the windows of his consciousness closed and the shades drawn. The appreciation of the beautiful ought to be a part of the equipment of every educated consciousness. Coming from the general to the particular, it almost goes without saying that educating the senses is indispensable for that pupil who may later become an architect, sculptor, painter, poet, or musician. These all revel in lines, curves, colors, and sounds.

Foundation of Taste.

And fifth, thereby the pupil is helped into the possession of all his powers. To get a sensation and comprehend it is one of his powers; not to get the sensations we might is to be isolated from a portion of nature's reality. And to be handicapped in our sensational beginnings is to be handicapped all along the line of later intellectual development. Begin at the bottom, but do not stay there, is our general guide in developing the intellect. There are types of knowledge sensational neither in origin nor in character, as the following chapters will show us, but here we must affirm that all knowledge of the external world so dear to the child's heart originates in a sensation.

Rounded Development.

So important a matter as educating the senses cannot have escaped the notice of the wise teachers of men, as the following quotations will illustrate. The Moravian bishop, Comenius, who, according to Cotton Mather, was once invited "to illuminate the presidency of our college" (Harvard), writes on this subject:

Educational Opinion.

"The foundation of all knowledge consists in correctly representing sensible objects to our senses so that they can be comprehended with facility." And Rousseau, the prophet of naturalism in education, writes: "The first faculties which are formed and perfected in us are the senses. These, then, are the first which should be cultivated; but these are the very ones that we forget, or that we neglect the most." And that priest of pure reason, Immanuel Kant, writes in a famous passage: "How is it possible that the faculty of cognition should be awakened into exercise otherwise than by means of objects which affect our senses?" Let me conclude these quotations with Professor Sully, who early in his psychological work began to write helpful words for teachers: "Distinct and sharply defined sense-impressions are the first conditions of clear imagination and exact thinking."

How educate the Senses?

From all these words bringing with us the feeling of the importance of the topic in hand, we may next raise the practical and none too easy question, how educate the senses?

The Objective Method.

In the first place, utilize the objective method of teaching. The sense-basis of knowledge of the external world demands the sense-basis of teaching the facts of the external world. Indeed, even in teaching the facts of the internal or conscious world it is most profitable to use sensible illustrations where they do not positively mislead. Old Dr. Coit used to remark, I believe, that he would not teach theology without a blackboard. So far as possible under the limitations

of the subject taught, all teaching should be objective in character, appealing to consciousness through the sensations. It is interesting physiologically that the optic nerve is as large as all the other afferent nerves combined, yet teachers rely almost entirely upon the auditory nerve, handling gingerly chalk and things. Books and talk are too exclusively our tools. As a certain Cuban remarked of a bright American girl whom he had but recently met, "Too much language." Show the objects of which you speak. Let there be demonstration. When the thing itself cannot possibly be obtained, recourse must be had to pictures, stereopticons, casts, drawings, models, and, best of all, travel. I know of a book course in botany where the members of the class did not see a plant until the final examination. This is not you, faithful reader, but ten to one you are to-day teaching some other subject without full appeal to the senses of your pupils. Spelling to-day would not be the rare and difficult accomplishment it is, if hand, eye, ear, and lips, with mind, all united in getting the word as it is. One of the principles enunciated by Herbert Spencer in his great chapter on "Intellectual Education" is, "Our lessons ought to start from the concrete and end in the abstract." First the sensation, then the thought, or, as Comenius phrased it, "First the thing, then the word." Many pupils and teachers will testify that sensations are more provocative of thought than are other thoughts.

Use of the Curriculum

Second, utilize aright those agencies in the curriculum that make for the training of the senses. These agencies include the kindergarten, object-lessons, nature-study,

the sciences, manual training, penmanship, drawing, vocal music, and similar work. One of the most valuable of the senses of man is the muscular sense, reporting movements, strains, pressures, and the like, and it is entirely overlooked in the historic list of the five senses of man. The muscles occupy more of the anatomy than all the other senses combined, and education, following in the line of the traditional senses of man, is just beginning to realize it has a service to render to the muscles as sources of sensation. Even where we have done something for the muscles it has often been from the wrong end; that is, for the smaller rather than the larger muscles of the frame. Fortunately nature in the play of children has offset the detrimental influence of the minute actions which the school has exacted of its pupils. Play, games, athletics, gymnastics, running, romping, climbing, come first in muscular development. Then for the smaller muscles the work of the kindergarten, manual training, penmanship, and drawing are beneficial, indeed indispensable. Poor penmanship and worse drawing are largely due to lack of discrimination between delicate muscular movements, together with a lack of coördination between the muscles and the eye.

For the centres of touch, sight, and hearing there are object-lessons, nature-study, the sciences, and vocal music. Too frequently our object-lessons have as their aim information concerning the object; this is a legitimate aim, but it is secondary to the prime aim of training the powers of observation. From them the child is to get the idea that things are to be looked

at, listened to, felt, taken to pieces, etc., that they may be understood. Even though we teach those subjects ordinarily supposed to afford little basis for sense-training, such as the languages, mathematics, and history, once we get the idea, we shall be surprised and delighted at how much we can do for our subjects by putting them down on a sense-basis.

Right Equipment.

Third, the school should be equipped with certain sensory apparatus, such as cases for minerals, plants, animals, and curios collected by pupils; also, sets of tools, weights, measures, scales, and regular plane and solid figures, all accessible to pupils for their use when needed. A case of tools is the full educational equivalent of a dictionary. It is the sense of real material things, objective facts, that children want and need, and the loss of which turns even the scholarship of men into pedantry. The student of mathematics needs his plane and solid figures, from which as a base his imagination can take wing. The equipment of the school with cases for collections of various kinds by pupils is not intended primarily to make pupils collectors, but to cultivate in them to some degree the spirit of the naturalist. At the entrance to every wood consciousness should habitually give itself the suggestion of the railroad crossing, "Stop, look, listen." How much more quickly the denizens of the forest are aware of us than are we of them!

The Sense of Smell.

Fourth, it would add greatly both to the pleasure and the æsthetic enjoyment of man if his sense of smell were better trained. The history of this sense in the race has shown a gradual transition from the useful in

animals and primitive man to the æsthetic in modern man. The olfactory lobes in the brain have shown a relative decrease in size. It is not to be expected that man can recover what the sense of smell means to his dog, or even to primitive men, who may have found it useful in discovering the presence of enemies, nor would such a recovery be desirable, though the chemist, the druggist, the physician, and the *chef* would deny that smell is no longer useful to man. The real ground for giving more educational attention to the sense of smell is æsthetic. As Professor Sully observes: "The cultivating of the sense of smell, of sensibility to the odors of flower and herb, pasture and wood, summer and autumn, is an important ingredient in the formation of æsthetic taste, and more especially the development of the love of nature, which is a prime factor in all real enjoyment of poetry." [1]

It would probably surprise us to read our favorite poet with a view to noting his reliance upon the suggestiveness of the odors of soil, flowers, fruit, perfumes, and the rest. The associations that cluster about odors are peculiarly vivid and lasting: given a certain rare and delicate odor, our minds quickly and easily revert to the times, places, and persons where it was experienced before. And the joy of the outdoor life, into the fulness of which modern man seems destined to come later, if not sooner, depends to a degree of which we are unconscious upon the messages of nature that assail our nostrils. To note and enjoy them is to-day the sign of a favored or poetic child of nature.

[1] Quoted by T. J. Morgan, "Studies in Pedagogy," p. 48.

Sounds of the Schoolroom.

Fifth, the sounds of the schoolroom should be accurate, not slovenly. The ear is being trained constantly by all the sounds it receives. When both teacher and pupils are clear and distinct in their enunciation, the ear is trained unconsciously to right standards, and easily detects a mispronunciation in oneself or others. Expressive and well modulated reading, a rightly pitched voice, clearly expressed answers, all help to exercise the ear aright.

Care for Sense-organs.

And sixth, see that the sense-organs, particularly eye and ear, are intact, and are kept so by the economy of the school. Any principal with the letter-on-card devices of the oculists can quickly tell if any pupil is near- or far-sighted, or has some trouble needing the examination of a specialist; or whether some pupils are partially deaf, by testing each ear with the tick of the watch at the normal distance, itself determined by averaging cases. Pupils deficient in any sense-organ should be quickly discovered and their parents notified of their need. Not far from a majority of truants are probably deficient in some sense-organ. Often a pupil is sensitive about his weakness, and receives blame from his teachers through being misunderstood, and so quickly feels himself out of adjustment with the school. Often, too, a pupil is unconscious of his own weakness. All such cases, illustrations of which will probably occur to the reader, need quick and appropriate treatment. And the school economy should itself carefully preserve eyesight through right position at study, disposition of light, use of shades, proximity to the blackboard, and instruction in care

for the eyes on cars, in the twilight, and in the home-study. We are becoming a spectacled nation at an alarming pace. Study under best conditions is a tax on the eyes, as nature developed the eye under conditions of long-range vision, a fact which now requires a fatiguing adjustment to see any near object. The school must all the more avoid any unnecessary strain.

Mistakes in Sense-training.

These, then, are certain ways in which the school may educate the senses. Other and better ways are worthy our study and effort. It may be profitable for us at this point to reverse the shield and refer to certain mistakes in sense-training. The normal not infrequently is best understood through contrast with the abnormal. Briefly, then, to refer to such mistakes, the list would include the putting of books before natural objects; the substitution of words about the thing for sensations of the thing; the giving and requiring of definitions before sensible illustrations; through the sense of hurry not giving pupils time to make their own observations for themselves; telling them what to sense instead of asking them what they sense; appealing mainly to a single sense-organ, for instance the ear, even when forms and colors are in question; requiring pupils to get from objects ideas with which they are already familiar; not showing the relations between the successive object lessons; continuing object lessons too long after reflection has set in; etc. The teacher's resolve should be, that my pupils, so far as I am able, shall open all the windows of consciousness to earth

and sky, that having eyes they shall see, and having ears they shall hear, the things that give both pleasure and peace.

An Artist Quoted.

To the artist we must go for the full appreciation of the education of the senses, and so I append the following words from the lips of George Frederick Watts: —

"The education of the people, that is the great question. Why do you not concentrate attention upon that? To educate your people, to draw out of them that which is latent in them, to teach them the faculties which they themselves possess, to tell them how to use their senses and to make themselves at home with nature and with their surroundings, — who teaches them that? Your elementary schools don't do it. No; nor your public schools. Your Eton and your Harrow are just as much to blame, perhaps even more so. What is the first object which a real education should aim at? To develop observation in the person educated, to teach him to use his eyes and his ears, to be keenly alive to all that surrounds him, to teach him to see, to observe, — in short, everything is in that. And then, after you have taught him to observe, the next great duty which lies immediately after observation is reflection, — to teach him to reflect, to ponder, to think over things, to find out the cause, the reason, the why and the wherefore, to put this and that together, to understand something of the world in which he lives, and so prepare him for all the circumstances of the life in which he may be found." [1]

[1] W. T. Stead, "England's Greatest Living Artist: George Frederick Watts," *Review of Reviews*, August, 1902.

Problems for Further Study

1. A List of the Sensations.
2. What Sensations do for Consciousness.
3. Protection of the Eyes of Pupils.
4. Spectacles and Civilization.
5. Truancy and Defective Sense-organs.

References on Training the Senses

Adams, Herbartian Psychology, etc., ch. VI.
Bain, Education as a Science, pp. 170–172, 247–272.
Compayré, Psychology Applied, etc., ch. III.
Dexter and Garlick, Psychology in the Schoolroom, ch. IV.
Johonnot, Principles and Practice, etc., pp. 14–25, and ch. V.
Morgan, Studies in Pedagogy, ch. III.
Preyer, The Senses and the Will, ch. VII.
Sully, The Teacher's Handbook, etc., ch. VI.
Spencer, Education, ch. II.

CHAPTER VIII

EDUCATING THE MIND TO PERCEIVE

A BRIEF preliminary paragraph must be devoted to the kinds of perception; following this, we may inquire concerning the significance of each kind of perception for the growth of consciousness, and then concerning the method of educating the mind's perceiving function.

The Kinds of Perception.

There are two kinds of perception, viz. sense-perception and inner perception. When the unqualified term *perception* is used, sense-perception is usually meant. By sense-perception is meant the knowledge of an individual sensible present thing. Examples would be the particular material objects of the world, like books, desks, chairs, tools, etc. It will be observed that sense-perception is the mind's interpretation of a sensation, and at this point the present discussion touches the one preceding. My sensation may report yellow; my sense-perception reports the gold ring. The definition shows that the object known in sense-perception is individual, otherwise we should have conception; that it is sensible, that is, capable of appealing to a sense-organ; that it is present, otherwise we should have memory or imagination; and that it is spatially a "thing," otherwise we should have inner perception.

Sense-perception.

Inner Perception.

The term *inner perception* must do double duty. We define inner perception to be the knowledge of

self and meanings. The mind looking inward at itself, and becoming aware of itself, its thoughts, feelings, or intuitions, or the mind becoming aware of the meaning of any thing, theory, or truth, is inner perception. For example, by inner perception I am aware both that I am now thinking of the mathematical axiom that the whole is equal to the sum of its parts, and also that it means so and so. These brief remarks concerning the nature of sense- and inner perception will become clearer as we proceed to ask concerning their significance for the growth of consciousness.

The Significance of Sense-perception.

Sense-perception has a significance for knowledge, for feeling, and for action. For knowledge sense-perception signifies that the great and only way by which the mind gets information of the material

For Knowledge.

objects of existence in relation to which we must live is through the interpretation of sensations; for this conclusion the preceding discussion on the senses has prepared us. To this conclusion must now be added the other things that sense-perception signifies for knowledge; viz. the simplest form of knowledge and easiest to acquire is that given through sense-perception of particular things as they exist; the knowledge of the individual precedes the knowledge of the general; the knowledge of the concrete precedes the knowledge of the abstract; and also, the knowledge of the material precedes the knowledge of the mental.

For Feeling.

For feeling sense-perception signifies how the feeling of familiarity depends on repeated perceptions, corresponding to the excitation of old brain-paths in

recognizing objects; how the feeling of monotony depends on too oft-repeated perceptions; how the feeling of strangeness depends on novel perceptions, due to new combinations of brain-paths; and lastly, how the feelings of interest and curiosity depend on novel perceptions similar to old ones, the old brain-habits assimilating to themselves the new, though similar, situation. These observations to the reflective teacher carry with them their own application.

For Action.

For action sense-perception signifies that past action, in the form of old brain-habits, is the cause of present perception, as a musician excels in the perception of music; that present action, in the form of adjustment of body or sense-organ, is the cause of present perception, as when we open our eyes to see, or strain our ears to hear; that perception is a cause of action, as when we begin to talk on the appearance of a companion and lapse again into silence when he goes; and still again, that perception is the beginning of self-controlled action, making possible the first delay in our reaction to a sensational stimulus, as when a child, after perceiving fire, checks his tendency to play with it. The more practical bearings on teaching of some of these meanings for action of sense-perception will appear presently.

The Significance of Inner Perception.

Inner perception, or the mind's power of knowing itself and recognizing meanings wherever present, signifies, to begin with, the certainty of the existence of consciousness, which Descartes said he could not doubt without self-contradiction, an insight that has

become one of the corner-stones of the building of modern philosophy. Through inner perception, again, we come to self-consciousness, the wonderful attribute of man distinguishing him from the other orders of creation; through inner perception we attain that knowledge of self which Socrates extolled and which makes possible our modern introspective psychology; through inner perception as in no other way we realize that the world is for the thinker his idea, that the most real of all relationships is that of the subject-object, the thinker and the thought; through inner perception, too, that is unduly protracted or morbidly introspective, action may be crippled, as in the case of Hamlet as he is usually, though perhaps mistakenly, interpreted; and, lastly, inner perception acquaints us with the inside of existence, with the meanings and the values of men and things. As the sun in its glory is caught and reflected by the smallest frost-crystal or dew-drop, so the meaning of reality is partially revealed by the least mind that thinks of it. These unamplified considerations on the significance of the two kinds of perception for the growth of consciousness, though perhaps somewhat taxing in themselves, will provide us with the bases upon which rest the practical suggestions on educating the mind to perceive, to which we now come.

How to educate the Mind's Perceiving Function.

In Plato's famous contribution to the science of oratory in the "Phædrus," he makes Socrates say, in effect, that "division" is one of the two principles of right speaking, "generalization" being the second. In somewhat the same spirit we must now say, teach

a lesson by analysis. If one should teach as the mind learns, and if the individual notion is acquired before a definite general notion can be, perception preceding conception, then we should teach the lesson as so many individual points or notions. Perception commands us to individuate the lesson. The mind can get the whole clearly only by first getting the parts separately. Teach by Analysis.

This implies that in his preparation of the lesson the teacher is to note the points he wants to make. These points selected by him to teach and stress should be both the essential ones of the lesson and logically related to each other. If he will avoid vagueness in his own thought of the lesson, the teacher may be successful in securing clarity in the mind of his class.

Once these essential and logically related points are selected from the complicated lesson material, teach them with clearness, with vividness, with force, and with illustration. From a lesson so analyzed and presented the pupils cannot carry away vague and indefinite impressions. As one clever teacher remarked, "Most of my pupils almost know something." Just as sense-perception dissociates from each other individual objects in the rich continuum of sensational experience, so the teaching of a lesson must make its individual notions stand out like the features on the countenance.

Three of the six great principles of intellectual education announced by Herbert Spencer have immediate bearing at this point. They are: "In education we should proceed from the simple to the complex. . . . Our lessons ought to start from the concrete and end in The Principles of Spencer.

the abstract. . . . In each branch of instruction we should proceed from the empirical to the rational." These principles are needed almost as badly in schools to-day as when first written, and they will never grow old. They mean the chronological priority of art to science, of language to grammar, of thing to word, of fact to definition, and of example to rule.

Learn to perceive by doing.

The next thing to note is that training in perception involves training in conduct. We are familiar with the motto, learn to do by doing; we must become familiar with the motto, learn to perceive by doing. Train in conduct to-day, if you would have clear and accurate perception to-morrow. The painter perceives colors, the poet perceives the delicate modulations in rhythm, the draftsman perceives lines and form, the worker perceives good and bad qualities of work, and the laboratory student perceives a poor experiment. To perceive a thing indeed, first make it. Our motor reactions, as in drawing any familiar object like a chair for the first time, show how vague is our usual perception of form. The basis of this suggestion is that all perception is due to brain-habit, without which we should have not a perception but a sensation. Professor Royce has conveyed the idea of this paragraph in the following way: "If you are to train the powers of perception, you must train the conduct of the person who is to learn how to perceive. Nobody sees more than his activities have prepared him to see in the world." [1]

First sense-perception, then inner perception; first

[1] J. Royce, "Outlines of Psychology," p. 226.

Make the Transition to Inner Perception.

that which is natural, afterward that which is spiritual; first the thing, then its meaning. Rest not in the knowledge of the material thing, but pass onward to its inner significance. Dr. Tompkins writes: "The individual material thing is the expression of an universal spiritual truth. The material world is the manifestation of the spiritual, and must be resolved into it." [1] This resolution of the material into the spiritual is the reverse of the process by which the artist embodies his spiritual message in some material form. The granite shaft at Bunker Hill is more than stone, it is both patriotism and gratitude; a word enshrining its idea is more than letters; the bow of hope and promise is more than the colors of the spectrum; the lily rebuking our anxiety for clothes is more than organized matter; and a sparrow's fall is more than an illustration of the law of gravity. Lowell could indite with the flavor of Emerson, —

"With our faint hearts the mountain strives."

Train Inner Perceptions.

For secondary school pupils, to whom a certain amount of introspection is natural, the mind-world as well as the matter-world should be an object of conscious study. Inner as well as outer perception should be intentionally cultivated. The sciences afford the best opportunity for developing sense-perception, and the humanities for developing inner perception. The courses in literature and history afford excellent concrete material for the definite study of the human self, bringing pupils thereby into a better comprehension of their own inner states. The study of the humanities

[1] Arnold Tompkins, "Philosophy of Teaching," p. 118.

should regularly include definite attention to such matters as putting oneself in the place of the character studied, the examination of motives, the influence of feeling, the effect of ideas on conduct, the estimation of different ambitions, and the effect of a crowd on mind and conduct. Such attention to inner perception, whereby pupils become acquainted with the nature of human consciousness in others and themselves, is peculiarly desirable for those who will never have a chance in college at social and individual psychology. The latter year or two of the secondary school period should be particularly rich in such material, not formally presented in a text, but concretely taught in connection with all the suitable courses. It is the last chance many boys and girls will have of attaining an instructed consciousness of self.

On account of the dominating influence of sense-perception in the grades, it seems to me we cannot afford to go the length Professor Stanley advocates in the following words, but I quote them here that we may at least be led to consider how far we must go with him. He writes: "It is high time that scientific education in study of minds as well as things should be adopted for the whole course of school training. It is far more important for the child scientifically to study angers and fears than seeds and larvæ; in short, to appreciate its own psychic state and its psychic environment is of more significance than knowledge of its physical state and environment . . . A rational scientific pedagogy demands, then, that the teaching of psychology, that is, a training in purely scientific ob-

servation and interpretation of consciousness, begin with earliest childhood and continue through school life." [1]

Moral Insight depends on Moral Action.

In moral education the perception of duty becomes clarified when the present duty that is seen is done. Present moral action leads to future moral insight. An immoral man's opinion on moral matters is cloudy. The vigorous actor is the clear thinker. Moralists, religious teachers, and psychologists alike unite in affirming this principle. One of the Proverbs reads, "Commit thy works unto Jehovah, and thy thoughts shall be established." Jesus said, "If any man will do His will, he shall know of the doctrine." Carlyle thunders: "Do the duty which lies nearest thee, which thou knowest to be a duty. Thy second duty will already have become clearer." While the calm Höffding writes, "A firm resolve carried out with decision and without hesitation, clears up the whole mental atmosphere and scatters the clouds which dim the clearness of thought." [2] In the mouth of many witnesses and in the personal experience of the reader the truth is established that moral practice is the cause of moral insight.

Problems for Further Study

1. The Distinctions between Sensation and Sense-perception.
2. A List of the Sense-percepts.
3. Introspection as a Method in Psychology.
4. Sensationalism as an Epistemology.
5. Positivism as a Philosophy.

[1] H. M. Stanley, "The Teaching of Psychology," *Ed. Rev.*, Vol. 16.

[2] Harold Höffding, "Outlines of Psychology," p. 331.

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CHAPTER IX

THE EDUCATIONAL USES OF THE APPERCEPTIVE PROCESS

Owing to the influence of Herbart on the psychological literature written for teachers, it is probably true that the chapter on apperception is the most familiar one in my list. For this reason the present discussion may detain all of us but little, and some of us not at all. Bearing always in mind our practical needs as teachers and avoiding at this point an attractive historical excursus into the meaning of the term "apperception" from Leibniz through Kant to Herbart and finally to Wundt, let me select for our consideration the nature, results, conditions, and uses, of apperception. As nothing else can do, the study of apperception impresses the teacher with the importance of viewing the lesson as the pupils from their limited experience must view it, for, as Professor De Garmo has said: "Modern child-study emphasizes the fact that the subject-matter of instruction, together with the sequence of its topics, and the time of its presentation, should be governed by the child's power to apperceive. Furthermore, methods of teaching and of moral training should take their cue from the same changeable power." [1]

[1] Charles De Garmo, Baldwin's Dictionary of Philosophy and Psychology, article, "Apperception (in education)."

The Nature of Apperception.

Apperception may be very simply defined as the mind's interpretation of the new in terms of the old. A more technical definition from the interesting, though

Definitions.

prolix, monograph of Lange on the subject is: "Apperception is that psychical activity by which individual perceptions, ideas, or idea-complexes are brought into relation to our previous intellectual and emotional life, assimilated with it, and thus raised to greater clearness, activity, and significance." [1] It will be observed from these definitions that apperception is not so much a mental result like sensations and percepts as a mental process. It might be likened to the physical process of digestion, the sensation being the food, and the percept being the resultant acquisition of strength. To show the relation of apperception, as a process of interpreting new experiences according to old ones, to sensation and perception, it might be said that apperception is the mental assimilation of a sensation resulting in a perception.

Illustrations.

Certain illustrations, parallels of which can be duplicated by the dozen by all observers of mental life, especially of its transparent processes in artless children, will clarify these definitions. Any child learning to master its physical environment acquires very quickly, even before the age of three, a limited though growing set of fairly general notions, each one of which is applied almost automatically to such new experiences as it will at all fit. Two of these general notions most used at present by my little girl of two and a half years is "asleep" and "wake up." The number

[1] Lange, "Apperception," p. 53.

of situations to which she finds these descriptions adequate is indefinitely large, such as the hat, coat, and gloves are "asleep" when put away and "wake up" when brought out again; the money is "asleep" when put into the pocket, and "wake up" when taken out again; the scissors are "asleep" when shut and "wake up" when opened; the electric light is "asleep" when turned off and "wake up" when turned on again; the grass is "asleep" when the snow covers it, and the snow is "asleep" when it melts; the stars are "asleep" at sunrise, and the sun "wake up," etc.

The identical process is at work also in the mind of older persons, only here the number of general notions according to which new experiences are ticketed off is larger and fit better. All of us find in the world what we ourselves are; we bring back from our travels according to what we carry; our judgments reveal ourselves as truly as their objects; more is given us according as we already have; we see what we have eyes to see; we hear what we have ears to hear; our life makes our philosophy; and so on through the list of the familiar true sayings. In his educational masterpiece, "Wilhelm Meister," Goethe wrote, "Man understands nothing but what is appropriate to him. Hence the duty of saying to others only the things that they can receive." Similarly Emerson: "What can we see or acquire but what we are? You have seen a skilful man reading Vergil. Well, that author is a thousand books to a thousand persons. Take the book into your hand and read your eyes out, you will never find what I find." Apperception is thus a human process, signifying that

all limitations to our insight are subjective in origin and character, the gradual widening of these limitations being the natural destiny of the growing life.

The Results of Apperception. The New Modified.

Seeing thus the nature of apperception, it will be easy to specify briefly its results for consciousness. Apperception, in the first place, modifies the new by the old. This is its most characteristic result. We can see in the new only what our old experience permits us to see.

The Old Modified.

Secondly, it is no less true that the new also modifies the old; it takes its place with the old, and becomes a part of the old against the next new experience. To a child raised in a Saxon community all men are white until travel shows him that a particular color is not an essential quality of man.

Comprehension.

Thirdly, apperception yields comprehension. We know a thing when we can classify it, when we can relate it properly to other things. What we cannot relate, we cannot understand; indeed, the unassimilable either escapes our notice altogether or else is quickly lost.

Interest.

Fourthly, and full of significance for the teacher, apperception means interest. Two things are uninteresting to pupils; monotonous old things and unintelligible new things. What interests them is the novel intelligible thing.

Unity.

Fifthly, apperception gives unity to our knowledge. The disconnected it seeks to join, the fragmentary it seeks to piece together. To use a crude figure of speech to illustrate mental effects, apperception is the

mortar that holds the stones together in the temple of knowledge.

Consciousness of Power.

And sixthly, the use of one's present knowledge in acquiring more gives a certain consciousness of power that is very stimulating and encouraging to pupils. They have done something of themselves and they feel it, the fount of knowing is springing up within them, and they recognize the truth, not simply because of the teacher's words, but as seeing for themselves.

The Conditions of Effective Apperception. The Apperceiving Mass.

The results of the apperceptive process are so many and so desirable in the class-room and laboratory and workshop that we may profitably inquire next concerning the conditions of effective apperception. These are, in succession, first, the existence in the mind of a rich and varied "apperceiving mass." There is no understanding of the strange, new, and difficult things pupils are constantly struggling to learn apart from present similar ideas already in consciousness. Every child has his little mind really full of apperceiving notions of some description; unfortunately they are not always rich and varied, owing to the limitations of past environment.

Attention.

The second condition is attention to the new subject. So essentially related indeed are the processes of apperception and attention that to Leibniz, who first used the term *apperception*, the terms were practically synonymous, and to Wundt to-day attention is one of the elements involved in apperception. Attention it is that spans the gulf between the old and the new, permitting them to fuse. At the beginning of the process

of apperception, the attention may be hard or easy to give to the new matter; as the process of apperception proceeds, the attention becomes increasingly easy.

Emotional Congruity.

The third condition is the sense of harmony between the class and the subject. Their feelings are agreeable to the work, their spirit and humor are right toward it, and the general atmosphere is invigorating. No teacher can work the miracle of knowledge in an unexpectant class; no revelation of truth can come to an unawakened mind.

Physical Conditions.

And the fourth condition of effective apperception is good physical conditions, within and without the body. Then the reactive energy of the mind is strong, and the class "catches on" with facility. Attention, rapport, comprehension, are all difficult to weak, nervous bodies or to strong bodies under physical discomfort.

The Use of Apperception in Teaching.

Turning from the nature, results, and conditions of apperception, we now come to the most practical of the questions concerning it, viz. what use may be made of apperception in teaching? In the first place, we must study to know the mental content of our pupils. This enables us always to teach out from where they now are. It is easier — though not easy — for the

Study the Pupils.

teacher to come down to the plane of the learners than for the learners to come up to the plane of the teacher. The things that possess the consciousness of children, we shall find, are not the logically most important things, they are the practical daily things, like other children, animals, food, clothing, objects, play, etc. With children we shall also find that the deed or the thing is

learned prior to the name of it. Unlike the players in "Hamlet," they suit the word to the action. Except we be converted from our adult ways of thinking, and become as little children, we cannot enter the kingdom of teaching. And of every great teacher, whatsoever the age of his pupils, it must be said that he knew what was in man.

Utilize their Capital.

Second, we must study to utilize the mental content of our pupils. Lazarus has said, "The apperceiving notions usually stand like armed soldiers within the stronghold of consciousness, ready to pounce upon everything which shows itself within the portals of the senses, in order to overcome it and make it serviceable to themselves." These armed soldiers sometimes lie sleeping; they need first of all to be awakened. Figures aside, this means that the proper apperceptive mass must be stimulated before presenting new material. The mind's own spontaneity cannot be trusted always to bring forth the right apperceiving material without suggestion from the teacher. The most difficult and remote conceptions are made easy and clear by utilizing the mental content already present, as when the conception of discipleship is presented to Galilean fishermen under the term "fishers of men."

The Opening and Closing of the Recitation.

Third, utilize particularly the beginning and end of the recitation to aid apperception. Begin by putting the class in touch with the subject, — call to mind familiar knowledge similar to the new you would present, or, better, ask free and informal questions on past experiences or study similar in content to to-day's material. Never fail at the beginning of a recitation

to state clearly, with all alert, the purpose of the lesson in hand. End a recitation also by suggesting the next subject, clearing up in advance any insuperably difficult matter, showing the relationship of that to this, referring to a related reading, etc.

Knit New to Old.

Fourth, and now I say, in the middle of the recitation also present new material always in relation to old, by story, by illustration, by parable, by review, by questioning the class on its experience. As James, the wonderful, has it, "The great maxim in pedagogy is to knit every new piece of knowledge on to a preëxisting curiosity; *i.e.* to assimilate its matter in some way to what is already known." [1]

Supply Apperceptive Material.

Fifth, teachers must supply the apperceiving material when lacking. It is the prior experience of the child that fits him for our instruction; if he has had no fitting prior experience, we must do what we can to supply his deficiency, remembering too that most of our pupils have had only inadequate prior experience. This idea may be illustrated by observational tramps in geography; visits to the famous places, battlegrounds, and museums in history; pictures, and stories about authors, their lives, their homes, in literature; the use of current market prices in arithmetic, etc. In general, create and utilize the apperceiving mass.

Take Time.

Sixth, allow ample time for the new impression to find its proper home in the mind. Not cram, not too many recitations, not too long assignments, not too many studies, not too much haste, but time to assimilate, to think, leisurely to absorb, and to grow. All

[1] James, "Principles of Psychology," Vol. II, p. 110, note.

this is little short of impossible, I know, when to-day the pressure is so great from both below and above. Meanwhile, however, till we Americans learn the classic art of slow haste, we teachers may select a few essential points for each meeting with our class and drive these home in preference to scurrying over many matters.

Correlation.

Seventh, a word about "correlation." Apperception teaches us that the true correlation is with life. Of course it is true that successive lessons must be correlated with each other, that a single subject must be self-correlated, that all the subjects must be correlated with each other, perhaps even with some central subject; but, after all, life is the centre with which each lesson, subject, and curriculum must be correlated. Apperception teaches us henceforth to know no centre of correlation except the child and his experience. Teaching is an extension of experience out from the known into the unknown. Every class-room is the sacred place where truth reveals itself to prepared minds.

Education an Apperceptive Mass.

In concluding our discussion of the subject of apperception which has occupied such a large, though unrelated place, in post-Herbartian pedagogical literature, let us conceive of education itself as an apperceptive mass. It will be a true conception, though not the whole truth. The educated mind alone, though often falling below its privilege, is permitted to get the most and the best from life; only in proportion as we are truly educated are we able to apperceive life in its reality. The secret of life is revealed only to those who

lead the real life, and the revelation of the secret of life is an unfolding revelation because the real life is an unfolding process. As Herder said, "What we are not we can neither know nor feel," and Longfellow adds, "We see what we have the gift to see;" and meaning the same thing, though more enigmatical, are the sayings, "To him that hath shall be given," and, "He that hath ears let him hear." It is the business of education to open the blind eyes, to unstop the deaf ears, to loosen the silent tongue, to equip the mind to react rightly on its world.

Problems for Further Study

1. The History of the Term Apperception.
2. The Physiological Explanation of Apperception.
3. The Influence of Old Habits on New Experience.

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CHAPTER X

AIDING MEMORY

"THERE is no topic in educational psychology more important than that of memory and its cultivation." [1] We may suggest several reasons why this opinion of Dr. Harris is true. First, because the importance of memory has been so overrated in the past of educational history. Indeed, it might be said that hitherto memory has been the pack-horse of education. It has received more attention from past teachers than, to use an outgrown term, any other "faculty" of consciousness. Of course the Jesuit systems of education have been and are the best, though not the only, illustrations, saying as they do, "repititio mater studiorum."

The Importance of considering Memory.

It has been overrated

Second, along with the overrating of the importance of memory has naturally gone unjust oppressions. It has been made to do double or treble duty. Its cultivation so nearly excluded attention to any of the other mental functions that one of the many variations on the historic "Three R's" is, "rod, rule, and remembrance." With this oppression memory-work became also perforce formal and mechanical instead of real and vital.

and oppressed.

Third, in contrast with the overrating of the past, and by a kind of natural reaction, the importance of

It is underrated.

[1] W. T. Harris, Editor's Preface in Kay's volume on Memory.

memory is being underrated to-day, especially the importance of verbal and rote memorizing. No one at the present time would make verbal memory the chief mental accomplishment; still it would be too much to say that a verbal memory has no value. It is important in life to have an accurate and ready memory, to be able to quote correctly and aptly and quickly, to remember names with faces, and to make what we know come up for immediate service. So many things upon the verge of which our memory trembles! There is a truth, though not a prepotent one, in one of the old phrases, "Tantum scimus quantum memoria tenemus." Almost nobody has a good word for "mere memory" to-day, although we sorely miss its absence, as in our poor spelling.

Fourth, let us outrightly maintain what we conceive to be the truth, what we all feel must be the truth when we think about it twice, viz. the real indispensableness of memory in education and in life. As Bain has it, though perhaps too strongly phrased, "The leading inquiry in the Art of Education is how to strengthen the memory." We correctly think of memory as knowledge of the past; without it, our present would be unintelligible and our future unanticipated. The true and indispensable function of memory is to make our reactions upon present and future stimuli more intelligent, reliable, and effective. In addition to this practical service, the pleasures of memory are manifold, particularly as it has a trick of dwelling mostly upon our joys and successes.

It is indispensable.

And fifth, it is important for us to consider memory

because of the many flaring announcements of "memory systems," mnemonics, and artificial devices for memory-training that are afloat, that have a smattering of psychological principles, and catch the dollars of the unsophisticated. Even the photographs of memory professors are not unfamiliar to the readers of advertisements, as who of us are not in these days when the advertisers in the magazines often show a more efficient use of "the psychological moment" than the contributors? Probably the decadence of the power to remember, through educational neglect, has contributed somewhat to the opportunity for "memory systems" to announce themselves, after the fashion of the following: — "Memory Systems."

86,000 Injured
10,000 Killed

These official figures for the latest fiscal year represent the unprecedented record of injury and slaughter on the railway systems of the United States. The epidemic of wrecks is rapidly increasing. Since July 1st 268 lives have been lost in railway wrecks, not counting hundreds of casualties. The reason back of almost every recent smash-up can be almost invariably expressed in the two words: —

"I FORGOT"

Either the despatcher, the operator, the conductor, the engineer, or the brakeman FORGOT something vitally important. Beyond every mechanical safeguard, every provision

of "standard code," or special rule lies the "human factor," and the most important element in this factor is MEMORY. This is true of every branch of the operating department of every railway, and it is true of almost every other responsible position in active life. If you want your memory as infallible as it is possible to get it, study "Assimilative Memory: —

How to Attend and Never Forget"

which is the title of the book that contains the complete LOISETTE MEMORY SYSTEM. This system, which formerly has been sold only under the most rigid restrictions and at a high price, develops and brings into action dormant and hitherto unused memory power. It gives a right direction to mental functions and powers, completely abolishing mind-wandering and insuring ACCURACY and PRECISION of thought. It increases by many fold the value of every mind. 12mo, cloth, $2.50.

Mnemonics.

A sure sign of the prevalence and the influence of such sensational promises is the appearance of satire.[1] Let us for a moment stop to illustrate and estimate these mnemonics, or artificial devices for aiding memory. Simple and untechnical mnemonics we all have probably used, illustrations of which are, the string around the finger, the knot in the handkerchief, "Thirty days has September," etc., the multiplication line nine, with its decreasing units and its increasing tens,

[1] See, for example, a witty skit by Carolyn Wells in the October *Century*, 1904, on "Professor Lose-It's School of Forgettory."

"Roy G. Biv" for the colors of the spectrum, giving the first letter of each color in order from red to violet, and, most famous of all, the formal logic lines beginning, "Barbara Celarent," etc.

Their Principle.

But the advertised memory systems use a more technical device, as well as these simpler ones. The principle of every mnemonic system is to form some sort of association, usually accidental, with the thing to be remembered, this accidental association being fixed in consciousness by thought and attention. Who, for example, could forget the height of Pike's Peak as 12,365 feet in case he had ever indelibly, though mechanically, associated it with the number of the months and days of the year? One of the most elaborate mechanical ways of remembering dates and numbers is by means of the so-called "figure-alphabet," in which each figure has one or more consonants which represent it. The figure-alphabet is first to be fixed in mind, then the number or date is remembered by making a fitting word of the consonants representing the numbers, supplying vowels. For example, it is desired to remember the date of the founding of Harvard, 1636. In the figure-alphabet the consonants representing the successive figures in the date are *t*, *ch*, *m*, *ch*. Connecting these by certain vowels, we get *teach much* as the key to the founding of Harvard!

Estimation.

How shall we estimate such mental foolery? Perhaps it would be too much to say sweepingly mnemonics have no value at all. Rather their value is limited to the memorizing of such things as have no logical

or natural associates, but are disconnected and unrelated, like lists of popes, kings, presidents, etc. At best they are a crutch for memory to go on, and as Compayré somewhere observes, "the memory is not strengthened by everything that aids it." It will also be noticed that the memorizing of the key is not easy; that at least is unassisted memory; there is no key to the key. Usually too the same time devoted to the thing itself that is spent on the device will yield a successful issue. It would be unfortunate for any mind to come to rely upon a mechanical association to keep it in touch with its past, for that past is really instinct with life and not at all the formal thing such a mental carrying of it would suggest. And as Dr. Noah Porter adds, ". . . if the mind tasks itself to the special effort of considering objects under these artificial relations, it will give less attention to those which have a direct and legitimate interest for itself." Finally it must be said that when facts to be remembered have essential relationships with other facts, it does positive violence both to intelligence and to reality to hang them by the neck until dead upon such a stiff framework.

How to improve Memory.

Let us turn then to the more vital and natural ways of keeping the knowledge of our past. First, a good memory goes back to good health. The physiological psychologists tell us that corresponding to our psychical experiences are physical brain-processes; that every mental occurrence means the formation of a certain brain-path; that when this brain-path is

Health.

retraced by nervous energy, the occurrence is revived in memory; that the permanence of these brain-paths depends upon the native retentiveness of the brain; and that this native retentiveness is practically unmodifiable by practice, though advancing age notably diminishes it. Now whatsoever quality of native retentiveness is ours by birthright is diminished in poor health and tends to reach its upper limit of effectiveness in good health. We all know how much better we can remember in health than in sickness, and how the events of an illness go from us. Thus indirectly, if not directly by practice, we can avail ourselves of whatsoever degree of retentiveness nature has granted us. We despise our heritage of retentiveness when we solicit ill-health by poor food, overwork, lack of exercise, bad air, improper clothing, and anxiety. In vain do we neglect physical demands and expect mental returns.

Avoid Brain Fatigue.

Second, avoid brain fatigue, particularly before it is to be subjected to any trial of memory. In fatigue the brain cells may shrink to half their normal size, and in this condition our associations are fewer in quantity, poorer in quality, slower in revival, and incoherent as related to each other. Any one who has sat up half the night preparing for an examination the next day will recognize this description. It is as though the tortoise had withdrawn into its shell and consequently is unable to make connections with the outside world. Though avoiding brain fatigue, it may be observed that moderate intellectual exercise keeps up the tone of the brain and is better than disuse for

the associative processes. A good memory, a good working brain, not so much demands infrequent long vacations as frequent short ones, of which the nightly sleep is the best evidence and illustration.

Make First Impressions Lasting.

Third, in teaching make the first impression vivid, definite, and exact. Only if so made is it likely to be lasting. Get all curious, alert, attentive, then quickly and deftly press home the matter, to use a coarse and inapplicable figure, like the seal of a letter upon the warm soft wax. Unlike money, in memory keeping is mostly a matter of getting. As Dr. M. Granville has said, "The natural and only true basis of memory is a well-founded impression." Physiologically expressed, a vivid first impression makes the brain path more permanent and more easily retraced. Since it is conjectured by Ostwald that nerve force is electricity, we may illustrate and magnify by saying the vivid first impression is like the lightning ploughing a path for itself down the tree trunk.

Repetition.

Fourth, if necessary, deepen the impression by repetition. This is like wearing out a plain path through a virgin meadow by much travel. Repetition, however, should not be mechanical, a mode of unthinking mental impression, but should be an aid to comprehension, judicious, in new ways, at intervals, and increasingly acquisitive. Mechanical repetition, such as is to be heard aloud, even in concert, in some Chinese schools, is the means to that rote learning and verbal memory so much deprecated. "Memory should be the cradle and not the tomb of

an idea," and repetition should rather nourish than destroy the young idea.

Fifth, let memory follow understanding. First comprehend, then remember. Not that we are to comprehend it all before memorizing, but that we are not to memorize what we do not comprehend at all. Many biblical texts learned in our youth still have not yielded up to us all their meaning; then we comprehended in part, now more, but still in part. The point is, do not compel, nor even allow, pupils to recite off glibly from their tongue's end what has no meaning for their consciousness. A busy little schoolgirl was asked if she understood what she was learning so fast. "Oh, no, sir," she said, "we have so much to learn we don't have time to understand it." Out of the mouths of our pupils are we condemned or justified! Understanding.

Sixth, improve the habit of study. This covers a great deal. In part it goes back to the point above, about first impressions, and in part it introduces us to some new considerations. In general it would be correct to say that pupils (shall I limit the statement to pupils?) do not know how to study. It is a very much larger matter than improving memory, but a good memory is one of the many beneficent results of a good habit of study. A good way to master any lesson is first to read the whole through carefully, leisurely, and attentively, — "one careful reading of a lesson is worth a dozen attempts merely to memorize the words." This gives a good general idea of the whole. Then read again, analyzing it into its essential parts, with Improve the Habit of Study.

concentrated attention, with leisure enough to let each main point sink deeply into consciousness in all its bearings, with thought fixed on the ideas the words express, and with reflection as to the relation of these truths to practical life. Then, when done, close the book, and think it all over in mind, ordering the essential points in their relation to each other, perhaps even putting them on paper, until some vision of the unitary whole composed of its many parts rises in consciousness. Then you have it. And I trust that what you have has been worth this method of getting it. You will agree that so to get it is to get it indeed and is not soon to forget it. So we ought to study the things that are worth our study at all.

Think!

Seventh, make the pupils think! This cultivates a logical memory. To think is to form real associations, to put things in consciousness where they belong, to get the thing as it is in itself. All things should be taught and thought in their relations to each other, stressing particularly the similar and essential relations. How happy a thing it is, when matters cannot be recalled, to be able to think them out again. We can think them out if we have first thought them in. Coleridge has said concerning memory, "Sound logic, as the habitual subordination of the individual to the species, and of the species to the genus: philosophical knowledge of the facts under the relation of cause and effect . . . these are the best arts of memory." We shall find that the most serviceable relationship under which thought can represent memorable things are those which nature herself assigns the

things, whether of contiguity, similarity, cause and effect, or part and whole. The consciousness whose knowledge is ordered as the facts of nature themselves are will have a logical and dependable memory.

Indirect Training.

Eighth, it will not be surprising after these points on improving memory to add, as yet another: train memory, not directly, but indirectly through training the acquiring and assimilative powers of the mind, viz. interest, attention, and intelligent perception. Memory, like happiness, is reached best by aiming at something else. Make the lesson a real present experience, leaving its recall to-morrow to take thought for itself. "The attitude of the pupil's mind should be; I must *perceive* this just as it is and in all its bearings: not, I must *remember* this." [1] Certain experiments by Bieroliet [2] prove that the coöperation of two or more senses in fixing the images of words to be memorized produces much better results than where only one is concerned, and that attention and interest are of more value than mere repetition ; or, as old Dr. Johnson is said to have remarked, "Interest is the mother of attention, attention is the mother of memory: therefore to get memory, secure both its mother and its grandmother."

Incidental Considerations.

This concludes what we have to suggest on improving the memory. The subject however is both so complex and so widely considered that a great many interesting and pertinent matters have grouped them-

[1] McLellan and Dewey, "Applied Psychology," p. 95.
[2] "Esquisse d'une Education de la Memoire," Paris, 1903.

selves about memory as a nucleus. Some of these we may, with profit perhaps, select and briefly consider.

The Importance of Forgetting.

And to begin with, let us refer to the importance of forgetting. Not that we should consciously aim to improve our powers of forgetting, which would probably end in our remembering all the better the things we wanted to forget, but that a certain amount of forgetting is natural and good, and from this fact we should take rather comfort than alarm. It is probably true that the brain never forgets anything, it registers all experiences; but for many reasons the majority of our experiences will never live in consciousness again. The unimaginable traces of themselves they left on the brain are too slight ever to permit their corresponding ideas to revive again. Few are the things chosen by recall out of the past, though many were the things that went into the composition of our past. And all this arrangement of nature is well. We never truly remember until we have forgotten; to remember everything in just the order it occurred and to repeat it so is to be mentally inefficient; the so-called redintegrating type of consciousness is both unlearned and untrained. To have forgotten the unessentials of the past, to have kept its essentials, this eliminates waste and gives mental perspective. The so-called forgotten influences the background and tone of consciousness, and, though the things learned have vanished, the brain retains the effect of once having learned.

We may recognize how true this is in those feelings of familiarity which sometimes sweep over us in present

situations, as though precisely all this has happened before and is now being oddly repeated as if by mischance. It probably means only that old brain paths are being restimulated that were originally formed in situations similar to the present, the dissimilarities being beyond recall, and so permitting no discrimination to appear between then and now. The upshot of the whole is that we are really different for every experience of life, but we are often unable to specify in what respect. The pupils who have studied have gotten more than they can say in the recitation or write in the examination; likewise no teacher can teach all he knows, and in order to teach a little, he must know much.

Learning by Heart.

The phrase "learning by heart" has considerable currency, and probably has had ever since the early days when books were scarce and there were no libraries of reference. What the phrase ought to mean is, repeating exactly what the intelligence has mastered. As such it is one of the valuable powers of mind. Too frequently, however, it merely means the unthinking rattling off of words by contiguous association. As such the words were gotten by mechanical repetition, and both the process and the result are bad, the mind not supporting the senses in acquisition, being passive instead of active, being impressed instead of growing, being encouraged to wander instead of to concentrate, and ending by being burdened with unassimilated luggage. Bad learning by heart is through sensation without intelligence; good learning by heart is through sensation with intelligence.

It may be remarked in passing that there is a period in the pupil's life, before reason sets in, when he delights to learn by heart. At this time, in general during the g ammar school period, the simple essential facts that one ought to know in our world should be memorized. Professor Bain[1] regards the years from six to ten as those of maximum brain plasticity. During the period characterized by the reign of memory things like dates, definitions, verses, maxims, bare facts, the multiplication table, etc., may be acquired with a positive delight, which later would be a dreadful bore. There is a time to remember and a time to cease from remembering, a time to forget and a time to reason.

Storing the Memory.

I refer to the phrase "storing the memory" next, only that I may combat the literal acceptance of the figure of speech. Truly speaking, the memory is not a storehouse, it is not a chamber with pictures hung upon the walls; it is a certain type of mental activity. Pupils do not store their memories, they exercise their minds in getting and reproducing. The true repertory of knowledge learned in the past is not the memory, but the brain. Really we do not commit things to memory, but to the brain. The knowledge which we possess, but of which we are not thinking, is not safely stowed away in a faculty of consciousness called memory, to be delivered when called for, — it is represented by certain changes in the structure of our brain. And our memory is not a dimly lighted room in consciousness, but the present mental act of

[1] Bain, "Education as a Science," p. 186.

recall corresponding to the restimulation of old brain paths. What will happen to our memory on this physiological basis in a life to come is a philosophical question as interesting to the speculatively inclined as it is important for all.[1]

Memorizing the Definitions.

Pupils often want to know of teachers if they shall memorize the definitions. The attitude of teachers varies greatly on this point, in fact, from a rigorous affirmative to a loose negative. I do not know anything particularly conclusive to write on this subject, and must simply add my opinion to the others. In any case the meaning of the definition should first be clearly apprehended. It is to be supposed that the author of the text has expressed this meaning in the most fitting way. Unfortunately this is not always the case. For example, in a dictionary itself of psychological terms I find the following definition of "association" (of ideas), a definition, too, in which two reputable authors had a hand, viz. "A union more or less complete formed in and by the course of experience between the mental dispositions corresponding to two or more distinguishable contents of consciousness, and of such a nature that when one content recurs, the other content tends in some manner or degree to recur also." My pupils in psychology are spared the memorizing of that definition. Consciousness should preserve the meanings of definitions only in the most fitting available language, whether from the text or the teacher. Yes, memorize the definition if you first understand

[1] Cf. Professor James's Ingersoll Lecture on "Human Immortality."

it and it is a good one. And I should go one step further and say, pupils should also be encouraged to express the meaning of the definitions in their own best way. Only one who has himself attempted to define poetry will fully appreciate the attempt of another, like that of Stedman. Let me add that when we pass out of the region of definitions into that of reasoning, memorizing has no place. For example, pupils should not be permitted to prove their geometrical theorems by a memory process, but only as a series of present perceptions. It is always better to change the letters of the text.

"Cramming."

In this connection let me pay my disrespect to "cramming" as an abuse of a rational memory. Cramming is the rapid gathering of information immediately before it is to be called for. It means less associations are formed with the other things in the mind, it means shallow and relatively impermanent brain paths, consequently the very quick loss from memory of what is so acquired, and also it means an inability to think with what is so gathered. We may be able to repeat it, we cannot apply it. The original problem in the examination upsets the mind that has crammed its information. Better, far better, is the regular term preparation with its time for reflection, assimilation, and brain-growth. We sometimes surprise ourselves at coming back to a new piece of music with greater ease in it than when leaving it last, because meanwhile the nervous system has grown in the direction in which it was exercised. Cramming eliminates the element of time necessary for the growth of the ner-

vous system. Among the many things pupils should know in advance while forming their habits of study are these facts about losing time under the expectation of making up for it by a rapid cram later.

Examining Memory.

It is very much to the discredit of the character of our written examinations that they so strongly tempt pupils to cram. An examination should test the judgment of pupils as well as their memory. The half at least of every examination should test what the pupil can do, presupposing that he has learned, — original problems, sight translation, new questions, anything to test his efficiency as well as his memory. As it is, we sometimes have the spectacle of a pupil with a consciousness like a parrot receiving diplomas of proficiency from our schools and even colleges. Only nature's rich gifts, not the character of the examinations we set, save us from many more such. The vice of examining memory instead of testing judgment has crept even into the class-room, where our teaching is too much like an oral quiz on last night's study than the development of ideas on the subject treated by the text.

Note-books and Memory.

Many of us, pupils and teachers alike, are in bondage to the note-book. We are so anxious to get the thing down that we do not stop to get it. To have it in our notes we mistakenly suppose is to have it. Presently our shelf holds a big pile of well-filled note-books, and we ourselves are but little the wiser for having written things down so industriously. Perhaps the note-book is here to stay as a necessity, because we seem unable to keep in mind all we need. At

this very moment I am writing from notes my objections to notes. But granted the note-book is a permanent tool in our workshop, there is a more excellent attitude toward it than our habitual one. Like fire, a note-book is a good servant, but a bad master. It is a bad master when we are mentally content to have written the thing down; it is a good servant when we write down for actual future use the thing we have first comprehended. In listening to lectures or making reports on readings, it would help us to take down only the author's bare outline, and then fill in later with our own remembered account of what was heard or read. Only muscular skill, not mental improvement, is involved in being a long-hand stenographer.

In a famous passage which arrested the attention of the Roman grammarian Quintilian, Plato has suggested that the very art of writing is inimical to memory, which we are prepared to believe when we try to throw ourselves back into the period of oral transmission of Homer, even of the catalogue of ships. Though long, I will quote the passage itself as being the best comment on modern note-taking. According to the story, probably made by Plato himself, the Egyptian god Theuth was the inventor of many arts which he was recommending to Thamus, the king of Egypt. "But when they came to letters, This, said Theuth, will make the Egyptians wiser and give them better memories; it is a specific both for the memory and for the wit. Thamus replied: O most ingenious Theuth, the parent or inventor of an art is not always the best judge of the utility or inutility of his own in-

ventions to the users of them. And in this instance, you, who are the father of letters, from a paternal love of your own children have been led to attribute to them a quality which they cannot have; for this discovery of yours will create forgetfulness in the learners' souls, because they will not use their memories: they will trust to the external written characters and not remember of themselves. The specific which you have discovered is an aid not to memory, but to reminiscence, and you give your disciples not truth, but only the semblance of truth; they will be hearers of many things and will have learned nothing: they will appear to be omniscient and will generally know nothing: they will be tiresome company, having the show of wisdom without the reality." [1] Commenting on the passage, Professor Jowett says, "Socrates means to say, that what is truly written is written in the soul, just as what is truly taught grows up in the soul from within and is not forced upon it from without."

Memory and Memories.

Those who have in mind the result of our inquiry in chapter VI on formal discipline will not be surprised now to read that there is no general improvement of the memory as a unitary faculty; there is only particular improvement of the memory as a function in connection with specific subjects. We have not a faculty of memory equally good for all matters, but a set of memories of unequal efficiency for dissimilar subjects. There is an historian's memory, a mathematician's memory, a business man's memory, a housekeeper's memory, a broker's memory, a train-starter's memory,

[1] "Phædrus," 274 E, Jowett Tr., third edition.

and so on through the list of human occupations. Each one has a certain mental scheme of remembering according to his habitual occupation. The point is that the memory ability developed in one occupation is not transferable to a dissimilar occupation; the athlete's prodigious memory of records and scores does not enable him the better to keep his trigonometrical formulæ. The improvement of memory in one subject does not necessarily improve it in all, just as strengthening one link in a chain does not strengthen each other link. We must carefully limit the transfer of a cultivated mental ability from one subject to another; it cannot be done when the subjects are dissimilar; it can be done when the subjects are similar.

From this latter fact we may take courage in cultivating the memory, and in our reaction from the faculty psychology we must avoid a corresponding extreme in what we might call an atomic psychology. The faculty is no longer the unit: it would be just as great a mistake to say one of the abilities of the faculty is the unit. The mind is the true unit; it can do different things like perceive, remember, conceive, etc., and it has different abilities in doing each thing, like remembering, to accord with the character of the things dealt with and its own previous experience in that field. When any two fields are similar, an ability is better in the second for having been practised in the first. For the application of this principle in matters of memory let me refer to the position of Professor Stout,[1] and quote his conclusion: "Just in so far as

[1] Stout, "Manual of Psychology," pp. 442–446.

this interpenetration of mental dispositions exists, the exercise of the memory for certain experiences will improve the memory for analogous experiences. When a man has made a certain amount of progress in the learning of a foreign language, further progress is facilitated, just because he has become familiar with certain general characteristics of the language, which do not need to be learnt over again for every particular case. Of course it does not follow that memory in general is improved by its exercise in this or that particular direction. The progress will only extend to analogous experiences in precise proportion to the degree of the analogy. Exercise of the memory in the study of languages will do little to improve it for the retention of chemical formulæ."

Memory and the Fruits of Education.

The subject of memory has sufficiently engaged us. As we leave it, realizing keenly its significance and importance, it remains only to remark that memory is not the final nor the finest fruit of education. We keep habits better than deeds in mind; we remember classes better than we recollect individuals; the results of education in the form of specific knowledge pass early from us; the contents of our school texts mostly escape us with years. All this shows that education really gives the mind a more efficient way of acting in the present situation than a possession to keep from out the past; education gives mental method rather than mental content, though it gives mental content too. The practicable thing with the human type of mind is not to know all facts, but to know

when and how to observe them, the books that treat of them, and the living men to consult about them. Our education consists, not in what we can recollect of the information gathered in our school days, but in our sense of familiarity with the world's best, in a certain efficient method in attaining it, and in the stimulus to continuous advancement throughout life. Education is rather the freeing of personal force, the liberation of the self, that it may live and work in full relationship with men and things. Thus the memory is not the goal of the teaching process, it is one of the moments of conscious development. Out from it we must pass into the region of imagination, judgment, reasoning, feeling, and action.

Problems for Further Study

1. Elementary and Secondary Memory.
2. The Physiological Explanation of Memory.
3. The Conditions of a Good Memory.
4. Distinctions between Memory, Recollection, Imagination, and Recognition.

References on Memory

Aiken, Methods of Mind Training, ch. III.
Bain, Education as a Science, pp. 22–35.
Baldwin, Mental Development, Methods and Processes, pp 279–307.
Compayré, Psychology Applied, etc., ch. V.
Dexter and Garlick, Psychology in the Schoolroom, ch. VIII.
Harris, Psychologic Foundations of Education, ch. XXIV.
James, Talks to Teachers, ch. XII.
Kay, Memory, ch. IX.
Morgan, Psychology for Teachers, ch. II.
Stout, Manual of Psychology, Book IV, ch. III.

Sully, Outlines of Psychology, ch. VII.
For an estimation of Mnemonics, cf. James Mill, Analysis of the Human Mind, pp. 324–325; Dugald Stewart, Elements of the Philosophy of the Human Mind, ch. VI, § 7

CHAPTER XI

EDUCATING THE IMAGINATION

The Educational Neglect of the Imagination.

THE imagination is one of the rather neglected mental powers in modern schools. This neglect of the imagination is of a piece with the general poor estate of æsthetic education. The school life, particularly including the college, is too inhospitable to works of the imagination. The cultivation of the imagination is not emphasized by that education whose standard is fixed by the market-place. Modern education is tempted all along the line to conform to standards set by commerce and utility; in some cases it has openly yielded to the temptation and established schools for business. This latter is more than justifiable, for trade schools are both needed and in the open. The really dangerous thing is the way the trade spirit is insinuating itself into all educational effort. Of this "marketable ideal" of education in its attitude toward pupils, Professor Van Dyke observes, "Their imagination, that most potent factor of life, is intrusted to the guidance of the weekly story-paper, and their moral nature to the guidance of chance."[1] If we look among our own pupils for an imagination other than the growth of nature prompts, we shall probably agree with Lloyd

[1] Henry van Dyke, "Creative Education," in "Essays in Application," p. 223.

Morgan that "the many do not cultivate their imaginative faculty."

The Little Store set by it.

Apart from the influence of utilitarian standards, and closer to the subject, there is the little value which teachers themselves are accustomed to attach to the child's feats of imagination. When the stories of the child's fancy come to the teacher's notice, they seem rather to need curtailment than enlargement. Such exaggerations often appeal to teachers as having in them an immoral element of prevarication. Consequently a frequent attitude of teachers is, the imagination of children is something to be restrained, not developed. At this point it is necessary to remember the principle of modern education, not by repression, nor even by impression, but by expression; or, that older word of Mme. Necker, "we only restrain the imagination when we exercise it." As the commercial patron of the school needs to learn the values other than financial, so the teacher needs to learn that the imagination of children may be the wings whereby we rise instead of the burden that weighs us down.

The Importance of Imagination.

In contrast with both these attitudes, let us maintain that the imagination is really one of the most important of human gifts, and so most deserving of educational care. The imagination is both a pleasure and a benefit to all classes of men. By its aid poetry is written, music is composed, pictures are painted, statuary is carved, and architectural piles are planned. Here are the pleasures and, indeed, the best benefits of man, as the soul is of more value than the body. But it is also true, and this the educational utilitarian

seems to miss, that by its aid the tradesman anticipates fashions, the farmer forecasts his harvest, the miner digs for gold, the diver seeks for pearls, the explorer pushes into an unmapped continent, the discoverer finds a new world, and the man of science fixes the place of our planet in the universe of space. By its aid, too, religion has conceived another world than the sense world, and boldly declares that the unseen is the eternal, and that God is invisible.

To all classes of men imagination is both a joy and a help, whether artists, scientists, religionists, or utilitarians. For the mathematicians D'Alembert has spoken, "The truth is, to the geometer who invents, imagination is not less essential than to the poet who creates." The psychological explanation of this importance of imagination is the very large place that imagery occupies in all consciousness. As Professor Royce has it: "The sensory experience and the imagery of any moment, when taken together with the state of feeling of that moment, constitute the mental material of the moment; and that, too, whether we are thinking of the loftiest or of the most trivial matters. The cultivation of the right mental imagery consequently constitutes a very important aspect of mental training." [1]

Stages of Development of the Imagination.

One of the first things for the teacher to do in cultivating right mental imagery is to understand the imagination of pupils, to get adjusted to the imaginative outlook that characterizes his pupils, to be able

[1] Royce, "Outlines of Psychology," p. 158.

to recognize the stages in the development of the imagination. In general these stages are three, corresponding crudely to childhood, youth, and manhood. The imagination of childhood may be characterized as exuberant; it draws little or no distinction between fact and fancy, its exaggerations are not falsehoods, and its wonderful creations appear thoroughly real to consciousness. It is the great period for fairy stories, Santa Claus, epics, stories of the martyrs, and the like. Childhood.

The imagination of youth may be characterized as idealizing. The distinction is drawn between appearance and reality, but the future and unknown reality is painted in roseate colors. The actual experiences of life are lifted up into the region of idealization, and the large generous ideals of human nature are seeking realization in life. It is the period of the hero, of romance and adventure, of fiction and good history. Youth.

The imagination of man may be characterized as disciplined. Reality has assumed a more sombre hue, the vision once so moving has become familiar, the light of common day is over all. The man travels more patiently toward his great and remote goal. It is the period of the artist, the prophet, the poet, the inventor, the discoverer, and the captains of finance and industry. The child's wonder-book, the youth's dreams, the man's purposes, — these mark the natural development of the imagination. To child and youth the teacher supplies that stimulus to the imagination which shall connect the labor of the man with the larger interests of our world. Manhood.

The Types of Imagination.

Another thing for the teacher to make his own about the imagination is that his pupils vary characteristically among themselves as to what sense-organ furnishes the basis for their mental images. To some it is the eye, to others the ear, to others the muscles, to others the sense of touch, and to a few perhaps it is still another sense-organ. Hence arises what the psychologist calls "the types of imagination," the visual, the audile, the motor, and the tactile being the four most common. In the upper grades and the secondary school some special sense becomes increasingly serviceable to each pupil as giving the cue to his images of absent objects. His attention, in the words of Baldwin, "is best, most facile, most interest-carrying for some one preferred sense, leading for this sense into preoccupation and ready distraction."

The Visual Type.

A word of description about each of the more prominent types of imagination will put the situation concretely before us. Perhaps half our children are visualizers or eye-minded. Probably the reason of this large fraction is to be sought in the social importance attaching to sight, also in our largely visual method of instruction. These children are those who remember things seen better than things gotten through any other sense; they learn preferably from copies, illustrations, drawings, and pictures; they keep things they read themselves better than things read aloud to them; the past literally unrolls itself before the eye of the mind; the future is mentally seen as in a panorama. As children and youth our visual imagination is better than in maturity, due to our decreasing in-

terest in individual specimens and our increasing interest in general types as we become older. Galton discovered that the visual imagination of American students was better than that of English men of science. Women are better visualizers than men. Some of the first characters in human history have entertained visions, Joan of Arc for one.

The Audile Type.

Next in number to the visualizers come the "audiles." These are the ear-minded pupils. As they remember they seem to hear again the sounds accompanying the original experience; the voices of their friends sound in their ears, the past speaks to them its messages, they learn better what they hear than what they read, duty seems to call to them, and the cry for help reaches their ears from afar. Socrates must be written with the great ones of this list.

The Motor Type.

Then there are "the motiles." These are the muscular-minded pupils. They can never get a thing until they have done it themselves; their thoughts of the past take the shape of images, some say sensations, of movement; to think the word is to utter it; to image the action is to begin to do it. Their bodies are all the while in a state of muscular reverberation to what is passing through consciousness. The spoken word is an auditory-muscular combination, and into this verbal type of imagination all the other types tend with habitual repetition to pass.

The Tactile Type.

Last of the types sufficiently pronounced to receive special mention is "the tactiles." These are the touch-minded pupils, whose hands are their great instrument of knowledge and whose images take the form

of things felt. The deaf-blind mutes are perforce largely of the tactile type of imagination, with which the muscular may combine. Laura Bridgman and Helen Keller are the classic illustrations of how culture may be communicated to the mind through the hand and show no sign in its quality of its unusual origin. The eye cannot say to the hand, "I am better than thou."

General Facts about the Types.

In summarizing our account of the types of the imagination it is to be observed that each normal individual belongs to some extent to all the types, tends indeed to image anything in terms of its dominant quality, whatsoever be the sense to which that dominant quality appeals. To all the image of a bell is somewhat auditory, of a portrait somewhat visual, of the sea somewhat muscular, of velvet somewhat tactile, of an apothecary shop somewhat olfactory, etc. But it is also true that each individual tends increasingly to conform to one or two of the main types. And further it is true that any one type may be cultivated through attention and practice.

The Use of the Types in Educating.

Now the practical question arises as to what use can be made of these types of imagination among our pupils in educating them. The first thing to observe is that the types are perhaps congenital in origin. This means that we as teachers can train, but hardly change, the types that nature has given us and our pupils. Those whose consciousness nature intended to entertain auditory images cannot under our effort become visualizers, and those whom nature intended

to get things through their hands and muscles cannot by us satisfactorily acquire through the hearing of the ear. What is here true of the types of images in particular is also true of all inherited capacities, — education can neither add to nor subtract from them, but only bring them to the front.

It has been suggested that we discover the type or types of our individual pupils, and appeal to each separately according to his natural gift. This sounds attractive, but in practice it would probably turn out specious. In view of the number of pupils that face the average teacher, in view also of the educational demand that pupils be developed on their weak as well as strong sides, this suggestion is hardly practicable. But in view of the types of imagination present before us in any class, the demand is all the more insistent upon us that we appeal to all the senses of all, if by any means we may reach some.

Appeal to all the Senses.

It is fundamental to note that all imagining presupposes sensing. A man born blind has no images of sight, one born deaf no images of sound, or one born with senses intact which, however, have never been really opened to the messages of the world has a deficient imagination. The more sensations children attentively receive, the more different senses are brought into play, the richer and broader will be the developed imagination. The imagery of to-day is the effect of the sensory experience of yesterday.

Imagination presupposes Sensation

Train the imagination too by action. The muscular or motile element is a part of the images of such objects as knife, pen, dictionary, clouds, curling smoke,

and Action.

flying bird, marching, dancing, singing, etc. Exercise the motor side of the nervous system. The imagination will be stimulated by acting out the history or reading scenes, by dramatic entertainments, by vivacious story-telling, by play and games, and by all kinds of constructions with blocks, sand, wood, and metal. To do something is not only to stimulate, but also to ballast, the imagination.

Bring out the Characteristic Quality.

Since we tend to imagine a thing in terms of its characteristic quality, teaching should bring to the fore the characteristic qualities of things, as the roar of Niagara, the vision of Mt. Blanc, the surge of the sea, the smoothness of the marble statue "finished to the nail," the level extent of the prairie, etc. Make it easy for the imagination to grip the essential quality of the things taught, and some kind of image of the thing taught should be gotten by every child's mind.

The Use of Certain Subjects.

Certain subjects are particularly serviceable in training imagery. Stories may be illustrated by the pupil's own drawing; reading should be accompanied with inward vision; exclusive reading of illustrated papers and magazines should be avoided as giving the imagination nothing to do; the descriptions of natural scenes in fiction should not be skipped in reading; the operations in arithmetic should be inwardly imaged; the essential features of a continent in geography the same; the scenes of past history should be re-lived in the imagination; the drawing courses make for clearer images[1] and so for clearer thinking; and for the muscle-

[1] A little fellow very busily engaged was asked by his teacher what he was drawing. "A picture of the Lord," he said. Remonstratingly

minded boys and girls manual training and domestic science are indispensable. Unfortunate indeed is that prosaic mind to which facts are facts and nothing more, words are just words with no image to enlighten their dull look, to which Tennyson's lines convey an idea, but not a vision, as he writes—

> And Morn
> Has lifted the dark eyelash of the Night
> From off the rosy cheek of waking Day.

The Two Kinds of Imagination.

The images that possess consciousness may be of things that actually exist, events that have actually occurred, or they may be of non-actual, ideal, constructed things, events, and scenes. We may image men, women, and animals that have been seen, or centaurs, satyrs, griffins, and mermaids that have not been seen. The musical composer may image an old piece or a piece as yet unwritten. Thus are illustrated the two kinds of imagination, the reproductive and the productive. The reproductive imagination fills consciousness with images of past experiences. The productive imagination combines past experiences in new forms; it can create, not *de novo*, but only by ordering existent elements in new ways. What separates the genius in art, invention, science, or religion from the plain man is his ability to order experience in non-habitual fashion. As reproductive imagination is so closely allied to memory, already discussed, we will

the teacher said, "I wouldn't draw a picture of the Lord, I don't think we know how He looks." "Well, you will know when I get through drawing this picture," was the confident reply.

at once pass to the difficult yet inviting subject of training the productive imagination.

Training the Productive Imagination.

Before the threshold of the subject a caution must be given. Genius is one of nature's gifts, not a schoolmaster's effect. The artist and inventor, the poet and discoverer, these are nature's work, not ours. They are born, not made. But being born they must be nurtured, and here is our function: not to create genius, but to develop it, not to make small minds great, but to permit greatness to come into its own.

Genius in the Schoolroom.

This, then, is our first word. Let me remember that some genius, some "mute inglorious Milton," may be here before me. Expecting him, I shall soon or late find him, and when I have found him, mine it is to discover him to himself, to direct him aright, to give him room. Give place to the free activity of endowed youth. In his behalf work a miracle of intervention in the grinding mechanism of the school. The great grow, they are not moulded. In its refusal to adjust itself to embryonic greatness, the school has lost to itself many a master mind that afterwards rises up to condemn it. Some of the greatest constructive intellects in England and America, in philosophy, science, and statesmanship, are not products of the schools. Not many teachers have the fortune of Saul in finding a kingdom while looking for asses. It is said that an old German teacher named Trebonius was accustomed to greet his little company of pupils with a bare head and a reverent bow: one of the boys before him was little Martin Luther.

Appreciation.

It helps the productive imagination when we are able to secure the appreciation of studies. Like is nourished by like. Whatever the imagination has produced, the imagination should enjoy. It is possible to describe a tear as $NaCl + H_2O$; moreover such description has the advantage of being valid for all tears; it also is a very teachable formula; but the appreciation of a tear means both emotion and imagination. In literature we need, perhaps, not less scanning and spelling and parsing and etymologizing, but more enjoyment and feeling and imaginative interpretation. The ideas in poetry are, of course, to be comprehended, even repeated perchance, but not to the neglect of rhythm, metre, reading aloud, expression, visual and auditory and even muscular images, and beauty. Our vocal music, again, makes thoughts primary, whereas harmony, melody, time, phrasing, and what Mozart described as the best part of music, "feeling it all at once," should have no secondary place. Even in the courses in science, where observation would seem to exclude imagination, the world is as truly wonderful and to be loved as it is factual and to be understood. And dry old mathematics, as so many regard it, is really replete with a marvellous symbolism all its own, capable, as Plato showed, of giving wings to consciousness whereby it rises above the particulars of sense. As for history and the ancient languages, it is only the imagination that can bring those remote periods near and make heroes real.

Tom Dixon relates that when one of his boys finished his Cæsar, his mother asked him,

"'Do you think you would know Julius Cæsar now if you met him?'

"A look of savage hate wrinkled his brow as he slowly replied: —

"'I'm not sure. But I'll tell you one thing, if I should happen to meet him, nobody else would ever know him!'"

It is safe to say this boy neither came, nor saw, nor conquered with Cæsar. The life of any past is a present possession only as the imagination enkindles it.

Exercise the Productive Powers.

The producing powers of consciousness need more exercise in school-life, and the reproducing powers less. Encourage story-inventions, permit personal creations in drawing and manual training, get up a sentiment in favor of writing verse, have English themes written only on subjects about which pupils know something personally and in which they have some interest, imitate the best literary models in writing compositions, have a school paper, plant a school garden, make a school exhibit, etc. Pupils find themselves, not only in facts, but also in acts.

Begin Young.

And begin young. It is said that the great musicians come from the country of cradle songs. The story is the perennial teacher of children in home and school, even to the hundredth repetition. The imagination of children should grow by feeding upon the great, simple, natural, and attractive wonders, like fairies, elves, animals, heroes, and gods, and it should be carefully protected from all grewsome things, like hobgoblins, witches, evil spirits, and creatures of the dark. In the dark these frightful objects of the imagi-

nation are real to the child, the eye not being able to contradict the mind's image. Even we feel better in a dark room after we have found the electric button. The modern civilization has been at great pains to banish fear, and the modern child has the right not to be made afraid.

Avoid a Disordered Imagination.

Of all things avoid an indulged and disordered imagination, such as that given by the excessive reading of cheap literature. Our girls had better a hundred times be relieving a case of distress around the corner than sobbing over the sad fortunes of fictitious heroines. Active work tempers the imagination to true ends. Labor gives us the sense of reality, keeps alive our sense of truth, and turns the imagination into profitable channels.

The Imaginative Teacher.

And in this matter of awakening imagination, a great thing is to be imaginative ourselves. Why not let the lights of fancy play across the schoolroom? No mechanical prescription will avail, no set time in the schedule can be dedicated successfully to the imagination; rather its unannounced visits must be welcome at any moment. Happy indeed is the lot of the pupils who sit at the feet of an imaginative teacher, and thrice happy that teacher who discovers an imagination to itself. His service to the world is none the less because it is at one remove, and it is right that his heart should secretly glow at the thought that through him one hand received its cunning, one ear heard the music of the spheres, or one eye saw the light that never was on land or sea. There is an old Grecian story that I have all but forgotten, and cannot

now locate, to the effect that the great ones of a certain place were once presenting themselves before Zeus, that the greatest should be crowned. In the company that had assembled to witness the honor bestowed, their teacher was also present, following up with interest the fortunes of his pupils. To the surprise of all, and most to himself, who was not a candidate for the honor, Zeus announced, "Crown the faithful teacher; he is greatest of all, for he made them all great."

Problems for Further Study

1. The Nature of Reproductive Imagination.
2. The Nature of Productive Imagination.
3. The Physiological Explanation of each Kind of Imagination.
4. The Influence of Imaginative Literature upon Pupils.

References on Imagination

Calkins, Introduction to Psychology, ch. XV.
Compayré, Psychology applied to Education, ch. V.
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Kirkpatrick, Fundamentals of Child Study, pp. 259–268.
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CHAPTER XII

STIMULATING THE MIND TO CONCEIVE

The Nature of Conception.

A FEW words first concerning the nature of conception. Perhaps this nature may be most clearly recognized if we contrast conception with perception. To see and recognize John Smith on the street is to have a perception, to think man is to have a conception; to see a bay horse passing is to have a perception, to think animal is to have a conception; to recognize it to be my duty in the present crisis to speak the truth is an act of inner perception, to think the notion duty is to have a conception. Without further illustration we may state this contrast in the following fashion: perception is the knowledge of individual objects, conception is the knowledge of general objects; perception gives immediate experience, conception gives mediate or generalized experience; and further it may be said that perception gives mental growth, while conception gives mental development; that is, through perception we add to our store, and through conception we come to think of it in new ways.

Contrast with Perception.

Definition of Conception.

To conceive of anything is thus to think it. And of any namable or describable thing it would be correct to maintain that it is conceivable. In a psychological sense of the term the word for which we shall have very little use is inconceivable. People use it

popularly, not in its strict sense of unthinkable, but to mean incredible or unimaginable. Because to conceive of anything is to think it, we have concepts of all kinds of things, such as individuals, particulars, concretes, abstracts, and universals. We can now have a concept of the John Smith we perceived on the street or the bay horse we saw passing; that is, we may think those individuals. It is true that in the history of thought the term *conception* has been limited almost exclusively to having general notions, and still is. Thus Sully says, "A concept is a representation in our minds answering to a general name;" and even Baldwin's "Dictionary of Philosophy and Psychology," the latest authority on psychological nomenclature, defines conception as "cognition of a universal as distinguished from the particulars which it unifies." This association of conception and general notions goes back to the time of Socrates, who first discovered concepts, and to Plato, who eulogized and hypostatized them in his theory of the "ideas." But the essential thing about conceiving is not that the objects conceived shall be universals, but that the thing, whether universal or individual, shall be thought in its distinctness from other things.

What Conceiving is not.

Perhaps it will assist us in realizing that to conceive is to think if we briefly refer to a few things that conceiving is not. To conceive is not to have a mental image or picture; this is imagination; though for visualizers conceiving may be attended by vague composite photographs in consciousness, as it were, in case the object conceived is a universal. Again, a concept

is not necessarily of the existent; we may conceive mountains of gold and pictures of silver, round squares and perpetual motion, but none of these things exist. And still again, let us not suppose that we can completely comprehend anything we conceive; to conceive is not necessarily to comprehend completely; we conceive the infinite and God without fully comprehending either.

The Extent of Conception.

At this point it becomes evident how wide is the extent of our power to conceive. The sway of conception includes all definitions, laws, problems, and objects of thought. All definitions are concepts: without the conceiving ability on the part of man there could be no dictionary. All laws, natural, civil, moral, are possible through conception; they imply the ability to think things in their essential similarities, to rise above the concrete experiences as they come, to separate off the accident from the essence. All problems imply conception; to have a problem and to feel it as one is impossible to a non-conceiving intelligence; how to live, how to spend time, what occupation to follow, these are questions that confront only a conceiving intelligence. In short, we shall find no power of consciousness wider in scope than conception.

Why should the Mind be stimulated to Conceive?

At this thought we must pause to inquire whether teachers have any duty to perform toward their pupils as conceiving intelligences, whether this so comprehensive human ability should be stimulated into activity through our effort. We cannot but answer these

questions affirmatively when we consider several things. In the first place, conceiving is a higher power of mind than perceiving, for, whereas perceiving gives us experience, conceiving takes it up and mediates it with thought, thus both bringing out a new power of consciousness and also making our experience significant. Secondly, conceiving is a mental economy, resolving many particulars into a few unities by discovering their links of similarity; conceiving strings the beads of perceptual experience. Thirdly, conceiving makes possible that later power of consciousness we shall discuss under reasoning, for to induce is a certain way of conceiving particulars, and to deduce is another way of conceiving universals. Fourthly, conceiving conditions the development of science, art, and morals, for in these regions general principles are involved, and the particulars are of value only as they embody principles; in art, for example, not the subject chosen but its means of treatment is the important thing. And fifthly, it will encourage us in our efforts to fertilize the mind that it may conceive if we remember that without cultivation the highest reaches of conception will not be attained at all. For the enforcement of this consideration let me quote from Bain:—

"Without much prompting, the child goes on accumulating classes of the first degree, and would go on to the end of his life in the same course. It is only by express teaching that it climbs to the higher degrees — to take cognizance of a piece of furniture, a tool, a quadruped, a sum, a sensation, a society; and a

very large part of teaching is occupied with this work. It comes up in season and out of season, and the teacher's resources should always be equal to it; at any rate he should know whether or not it is in his competence at the time. He cannot be too well informed as to the conditions of success in explaining and impressing a generality. Indeed, this is the central fact or essence of Exposition, properly so called." [1]

How stimulate Consciousness to conceive?

Seeing the importance of doing it, we now ask the practical question, how shall consciousness be stimulated to conceive? The great first thing is to secure that the lesson after presentation be conceptualized. The new material is presented singly that it may be perceived; after such presentation it must be thought as a whole; some general notion must be reached which will unify the whole. Facts are first to be perceived as individuals; then they are to be explained and interpreted by principles. No lesson after being taught in its detail should be left without summarizing it in a single proposition. Perceptions fertilize the mind, which should then conceive and bring ideas to the birth. As the great old Pestalozzi said, "It is the chief business of education to pass from distinctly perceived individual notions to clear general notions."

Conceptualize the Lesson.

Use the Socratic Art.

In developing concepts we cannot do better than attempt to imitate the maieutic art of Socrates. In the dialogue of Plato entitled "Theætetus," Socrates describes himself as following his mother's profession

[1] "Education as a Science," p. 192.

of midwifery, — only he brings ideas to the birth. A good example of Socrates at work is found in Plato's short and easy dialogue, the "Meno." Socrates executed his art by the question and answer method, leading the mind on gradually from point to point until it reached the general notion. If, as he said, the Gorgias of Plato taught the late Senator Hoar the art of cross-questioning as a lawyer, it and the other Socratic dialogues will teach us much concerning the attractive art of pedagogical questioning. Only we must avoid the leading question so much indulged in by Socrates.

Learn to Conceive through Acting.

Next it is to be observed that exact general notions come only through conduct. We get a better general notion of a play by seeing it acted than by reading it, and by taking part in it ourselves than by seeing it acted. We get a better general notion of an author's style through attempting to imitate it than through reading it. We get better notions of forms and figures when we make them than when we see or read about them. Particularly is it true of young minds that their concepts tend to be motor in character: the axe is what you cut with, the pen is what you write with, "memory is what you forget with," and "salt is what makes your potatoes taste bad when you don't put it on," etc. Action both originates and defines our concepts. The man who has never given anything has a very vague concept of what it is to be a philanthropist; the man who has never hoarded money has a very vague concept of what it is to be a miser; and the man who is not moral has great difficulty in appreciat-

ing that there is any morality anywhere. Clear concepts everywhere are the product of vigorous action.

Lead Adolescents to generalize consciously.

It has just been observed that with young minds particularly concepts arise through action. Now, older pupils in the secondary school may be taught to generalize consciously. That is, following the old psychological account of the origin of conception through comparison, abstraction, and generalization, an account applicable enough to fairly mature minds, adolescent pupils may be led to reach general notions consciously. Call for the evident principle in a certain general's campaign, the essential meaning of a certain historic movement, like the revolt of the colonies, their federation, their later union. It is a great pleasure to consciousness to generalize, so much so that we need only to give the opportunity; then it will be our task to see that the facts are first known and then not violated as the mind rises to the general notion, — so much so that Lord Bacon has somewhere told us that the mind needs not so much wings by which to rise as weights to keep it down. Of course it cannot be too strongly emphasized that the indispensable prerequisite for any general notion is the particulars, percepts and actions, upon which it is founded.

Vary the Instances.

And vary the instances. Before naming the concept of square, for example, show it in many sizes, materials, and objects. Before naming or defining the term *graft* that covers to-day such a multitude of sins in American life, illustrate it from the simplest to the highest types of violation of trust for personal

ends. Instances that show contrasts will sharply define concepts, as round and square, virtue and vice, white and black, true and false, beautiful and ugly, etc. "The habit of assigning contrasts or opposites needs to coexist in the mind of every instructor, with the habit of quoting examples as particulars." [1]

Discover Causal Relations.

One of the commonest and most far-reaching of the concepts is that of cause and effect. Few concepts will unify experiences or historic periods better than causation. This concept views events under the form of time, and asserts the real unity of the earlier and later. The earlier is the later in potential form, and the later is the earlier in realized form. Everywhere there is identity between cause and effect except in time. The lightning is the electricity that was in the cloud, the thunder is the air vibrations set in motion by the electric discharge, the wet ground is the earlier rain in the new position time gives it, and so on. If we think of the effect as the transformed energy of the cause, we shall have it. This concept will serve pupils in conceiving the unities in experience as few others can, and the hunt for the cause will be one of the most stimulating intellectual pursuits in which classes can engage.

Cultivate Definition.

Further, let me suggest that we seek to cultivate the art of striking definition. The proper place for a definition is after the thing to be defined has been reached and named, is after our inquiry is over, as Kant said. A definition should sum up, not initiate, an inquiry.

[1] Bain, *op. cit.* p. 195.

To begin with, a definition is likely to prejudice the investigation. First the facts observed, then the concept reached, then the term defined, — this is the natural order. Too many terms remain undefined both by us and by our pupils. Try yourself now on the exact meaning of such common terms as science, evolution, education. Define well yourself, and get your pupils to define; and to define well you will make use first of percepts and acts, then of words. It should be kept in mind that a logical definition states the *genus* to which the thing defined belongs and the *differentia* which distinguishes it from the other species belonging to the same genus, as in Aristotle's famous definition of man as a rational animal.

Tabulate the Present Conceptual Knowledge of the Class.

And my last suggestion is that the teacher make an experimental investigation of the conceptual knowledge of his class. Make a list of the leading concepts of your subject and discover what the class already knows of their meaning. Such an investigation will show you both where to begin and how to proceed. We take too much for granted in dealing with our pupils, regularly assuming they know more about the elemental concepts of which we speak than they do. Such an investigation as this is the more necessary when pupils have studied our subject with other teachers before coming to us. As an illuminating example of such an investigation as is here recommended, I append the following table:[1] —

[1] Taken from Kirkpatrick, "Fundamentals of Child Study," p. 274.

Per cents of ignorance of Boston children entering school: —

Robin	60.5	Ankles	65.5
Pig	47.5	Elbows	25.0
Chicken	33.5	Dew	78.0
Elm tree	91.5	Woods	53.5
Wrist	70.5	Hill	28.0

Having these and similar facts in mind, we realize better what the problem in the elementary grades is, and why President Hall should be led to say, "The best preparation parents can give their children for good school training is to make them acquainted with natural objects, especially with sights and sounds of the country."

Problems for Further Study

1. Plato's Theory of the Ideas.
2. Realism and Nominalism.
3. The Old and the New Theory of the Origin of Concepts.
4. Concepts and Language.

References on Conception

Bain, Education as a Science, pp. 191–197.
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De Garmo, Essentials of Method, pp. 18–23.
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Harris, Psychologic Foundations of Education, pp. 37–42, 78–89, and ch. 26.
Royce, Outlines of Psychology, pp. 285–292.
Schaeffer, Thinking and Learning to Think, ch. VII.
Smith, Methods of Knowledge, ch. IV.
Sully, Outlines of Psychology, ch. IX.
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Tompkins, The Philosophy of Teaching, pp. 183–198.
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CHAPTER XIII

TRAINING THE MIND TO JUDGE

Kant quoted.

"THE faculty of judgment is a special talent which cannot be taught, but must be practised. This is what constitutes our so-called mother-wit, the absence of which cannot be remedied by any schooling. For although the teacher may offer, and, as it were, graft into a narrow understanding plenty of rules borrowed from the experience of others, the faculty of using them rightly must belong to the pupil himself, and without that talent no precept that may be given is safe from abuse." [1]

Every teacher of experience will agree with these wise words of the great Kant. We are come, not to teach, but to practise the judgment of our pupils. In order that we may be prepared to consider the question of how to practise the native judgment of our pupils, let us briefly note the nature of judgment, the causes of false judgment, and the advantages of having a practised judgment.

The Nature of Judgment.

A judgment when expressed in language is what the grammarians call a sentence, and the logicians a proposition. Both the sentence and the proposition are objective manifestations of the mental act of judg-

[1] Kant, "Critique of Pure Reason," p. 133, Müller Tr.

ing. It is the business of the psychologist to go behind the sentence and the proposition in order to discover what the mind has done that gets expression in these ways. Upon introspection we shall probably find that in judging the mind makes some assertion concerning reality. Judgment is "the mental function and act of assertion or predication." [1] Upon examination we shall further find that these assertions we are continually making about things and one another are either affirmative or negative; we assert either that things go together or that they do not. Or, as Professor Royce puts it: "When we judge, we accept or reject a given proposed portrayal of objects as adequate, or as fitting its own purpose." [2] To accept the description of man as rational and mortal, to reject the description of man as infallible and perfect, is to judge.

Judgment the Elemental Act of Intelligence.

At this point we must note that intelligence all along in its development, beginning even with sensation, has been struggling to know the truth, has been reaching out after reality. In judgment at last consciousness becomes able actually to make assertions as to what the reality is with which it has been dealing all along. In fact, it would be correct to say that judging is implicit in all the preceding stages of intellectual development. It is true that the responses of intelligence to reality so far have been rather unconscious than clearly conscious of themselves; nevertheless, in every stage intelligence has been making such responses as it could to reality. A sensation is the response of intelligence to

[1] Baldwin's Dictionary.

[2] "Outlines of Psychology," pp. 292–293.

stimulation; perception is the repeated response of intelligence to sensation; conception is the response of intelligence to repeated perception; memory and the reproductive imagination are the response of intelligence to its past; and the productive imagination is the response of intelligence to the future or to ideal values. Everywhere the judging activity has underlain the work of intelligence. At last this judging activity becomes conscious of itself in making assertions about the nature of reality. It is having such thoughts as these in mind that has led Professor Dewey to speak of judgment as "the typical act of intelligence"; or Professor Creighton to describe judgment as "the elementary process of thought"; or Dr. Everett to write, "with the judgment we first enter the realm of objective reality." For an amplification of this brief account of the nature of judgment recourse must be had to the works on logic.

Causes of False Judgment.

Every judgment intends to be true; no man seeking the truth intends to deceive himself. The judgment that he has reached appeals to him as true. Nevertheless, it frequently happens, as we all know, that judgments may be false; it has turned out that we were honestly mistaken. Could we but eliminate false judgments, by so much the more should we know the truth. It will help us to enumerate some of the causes of false judgments.

The Falsity of Judgments and the Falsehood of Propositions.

Before doing so it may be well to draw certain distinctions. We have seen that the judgment is the subjective mental act of assertion concerning reality that gets its objective expression in a sentence or

proposition. Now a judgment may be false, but it cannot be a falsehood, while a proposition may be a falsehood. The proposition which intentionally misrepresents my judgment is a falsehood, and as such is reprehensible; a judgment at worst can be only false, while intending all the while to reach the truth. We are not discussing the causes of falsehood, or why men lie, but the causes of false judgments, or why they make honest mistakes when aiming to state the truth.

Lack of Observation

Now the causes of false judgments are many; let us enumerate five, viz. lack of observation, lack of reflection, mental dependence on others, prejudices, and lack of experience in the field of the judgment. Lack of observation warns us against neglect of facts in making our judgments. Really, the first thing to do is to get the data, then judge. This is so obvious that it would seem unnecessary to mention it, did not we all tend so strongly to pass judgments out of the fulness of our ignorance. Most of the adverse criticisms on people we let slip "the barrier of our teeth," to use a Homeric expression, are without knowledge of the facts involved.

and Reflection.

Lack of reflection warns us against mental haste in reaching our conclusions. The facts must not simply be at hand; they must also be thought through. It is not easy to think; in fact, really to think is one of the most difficult feats our intelligence accomplishes. We are altogether deluded as to the amount of thinking we really do, and it would be both true and surprising to say that many of us have never devoted a solid hour to serious reflection upon any difficult problem in life.

On the contrary, our time is mostly taken up with snap-shot judgments, the jumping at conclusions, and the thcughtless expression of opinion. We ought to agree with the judgment of Cicero, "to think is to live," at least to the extent of making thinking a part of our living. Our judgments would certainly be by so much improved.

Mental dependence on others warns us against not thinking for ourselves, and merely reflecting as in a mirror the opinion of others. Thus the false judgments of others are delivered by us, and the true judgments of others, not being thought through by us, are misunderstood and so passed on into circulation. The logicians warn us against the fallacy of appealing to authority, *argumentum ad verecundiam*, and Schopenhauer writes one of the most powerful of his essays on "Thinking for Oneself." Look it up! Aristarchus in the third century B.C. said the earth was not the physical centre of the universe, but the authorities got the better of him till Copernicus came. Discovery and invention, the Newtons and the Whitneys, are impossible where the fashion rules of thinking as others think. The temptation is peculiarly strong to do so in all the conservative regions of human nature, as in religious matters. Certain systems of religion and education are in danger of cultivating the very mental subserviency they should avoid; as Macaulay somewhere says, in effect, of the Jesuits, they found the point up to which mental cultivation could be carried without reaching mental independence.

Mental Dependence.

Of prejudices as a cause of false judgments it is not

Prejudices.

necessary that much be said either to clarify or emphasize the point. The word itself indicates that a prejudice is a prejudgment. Our prejudices are usually emotional, not rational, in character, and of them Descartes, that clear thinker and founder of modern philosophy, remarks somewhere that "a man can more easily burn down his own house than get rid of his prejudices." Like jealousy, they make the food they feed upon; like spiders, they live where there is no food to feed upon. To what one of us has it ever occurred to estimate truly the virtues of my enemy? It is proverbial that every question has two sides, but our side usually contents us. The wise Bacon enumerated four kinds of "idols" that beset the human reason; the second kind is those of "the Cave"; every man views the world through the uncertain opening of his own cave; Bacon meant by the "idols of the Cave" our prejudices.

Lack of Experience.

And lastly, lack of experience in the field of judgment is a common cause of false judgments. Probably we are all experts at something, but not at everything. To pass judgment beyond our own field is hazardous. Perhaps the many "symposiums" in newspapers and magazines err from this cause as much as from any other; it is apparently thought that because a man has won prominence in one line his opinion will be valuable in all lines. The false-hearted man's judgment about society is worthless, for it takes an honest man to recognize an honest man. Plato with great acumen makes the physicians in his ideal society of weak bodies that they may the better judge con-

cerning the diseases of their patients, but his legal judges he keeps free from the taint of corrupt practices, for no man is a better moral judge for being immoral; to judge sin it is not necessary to have been a sinner; to judge a righteous man it is necessary to be righteous. These, then, are some of the causes of false judgment. Fortunate are we if, knowing them, we may avoid them.

The Advantages of a Trained Judgment.

The contrast to the matter of false judgments appears as we now come to think of the advantages of a practised or trained judgment. Upon reflection it will appear that these advantages are at least four, viz. efficiency, individuality, self-confidence, and social service. A trained judgment increases the efficiency of a man. When the problems of living arise for settlement, he knows what to do and advise. The judgment is the mind's tool for life; rare enough are the men whose judgment is a dependable tool.

Efficiency.

Individuality.

A trained judgment adds to the individuality of a man, making him intellectually independent and self-reliant, and preserving him from essential subjection to an authority other than his own. Rare, too, are the persons whose judgment is really something more than the mirror of other men's minds; like "luna with the bastard light," they are good reflectors. Our judgment should be our torch, not our mirror. Even in seeking the counsel of others our own judgment should appear in selecting those to whom to go.

Self-confidence.

A trained judgment also increases our self-confidence, making us intellectually self-respecting. It is no small

equipment for living to have a certain sense of mental mastery over circumstances, to be able to conquer through applied knowledge, using the facts of nature for our purposes, and comprehending the inwardness of the acts of men for mutual benefit.

Social Service.

And lastly, a trained judgment, to him that has the disposition, admits of large social service. There is always need of the moralized intellectual giant to bring order out of human confusion. In our day especially there is need of a socialized judgment with a conscience behind it. The times are overripe for the wise solver of the problems of social righteousness, who will not simply tell us the way, but be our way. Old forces with power enough resident in them to save the individual in his private life need to be applied to saving that same individual in his public life.

Suggestions for the Teacher.

That we as teachers may do what we can to provide society with such efficient servants, there are certain things to which we must attend day by day in our work. First, then, subordinate in importance the knowledge of the fact to the ability to judge concerning the fact. Discover the bearings, the relationships, the applications of the fact. This means that knowledge passes over into wisdom. As the use of money is more important than acquiring it, so is use of knowledge. To follow this one suggestion would mean that we teach the subject less and the pupils more, securing from them the expression of opinion close upon the recital of facts.

Subordinate Information.

Independent Thinking.

Second, cultivate in pupils the habit of independent

thinking. Ask such questions as necessitate it, and be inwardly discontent until you have secured it. From a theme of one of my summer pupils, a practical teacher, I quote the following: "In a class in Mediæval History, in a lesson on the persecution of the Christians, the lecturer walked into the room and as he took his seat he looked up at me from his roll book and said, 'Miss ——, if you had been the Emperor of Rome, would you have persecuted the Christians?' That one question has meant more to me than any one book on applied psychology that I have read since." And as we read the question, it is still provoking thought. When a diffident pupil has met us with his independent opinion, deal with it gently. Entertain originality hospitably. The very aim of the class-room work is not uniform knowledge, but multiform thinking.

Direct the Thinking.

Third, do not tell the class what to think, — this is dogmatism, with us the authority, but direct their thinking, hesitating not to express your own opinion at the right time. Our class-room discussions are not so much to settle things as to arouse the investigating spirit. For young people to be on the hunt for truth is transcendently more important than for them to suppose they have learned it. And why is not the statement equally applicable to ourselves? It is an error to suppose that the class comes out right, when we tell them what is right; teaching is not telling, it is stimulating.

The Text a Guide.

Fourth, consider the text-book a guide to be understood, not an authority to be memorized. This for teacher and pupils alike. For the teacher to dare to

disagree, and to know enough to do so successfully, will mark an era in that class-room. Be continually making contributions to the text; your pupils will thrive in such a bracing atmosphere. The real teacher is not the teacher of a book, but the teacher of the truth, using books only to supplement his teaching.

Practise!

Fifth, following the suggestion of the wise Kant in the opening quotation, practise the judgment. The mind judging is the mind asserting what is true, feeling what is beautiful, or sensing what is good. The element of judgment appears in science, in art, and in morality. Judgment in matters of art is usually called taste, and in matters of morality, conscience. To practise the judgment, then, it is necessary in science to hunt for the truth, classify new specimens, find the meanings of things, and, passing into philosophy, intuite the unity of reality. In art it is necessary to estimate beautiful things of nature and man, seeking out the ideal they embody, and determining the degree of success with which the material manifests the ideal. In history, biography, and literature it is necessary to estimate the motives and conduct of the characters studied, so far as these are easily accessible. In the works of the productive imagination this is easy to do, as the characters lie open before us. One's self-respect tends to prevent his doing what he does not excuse in another.

The Mean between Authority and Independence.

Sixth, to avoid a youthful self-sufficiency while securing the original expression of opinion, it is necessary to strike the golden mean between independence and authority. The young child is entirely under authority in his thinking, influenced by associates, parents, and

teachers. The mature man ought to do his own thinking. The transition from childhood to manhood is to be gradually effected in youth, in which respect for the judgment of elders is to be preserved while a certain independence is to be won. Youthful irreverence and mature dependence are to be avoided. It is much easier to give this suggestion than it is to heed it, and however successfully the example of independence and reverence is illustrated or portrayed, we may at times expect youthful energies to break bounds and rush over holy ground.

The Action of Nature and Time.

When all is said and done, let us remember finally that the matter of getting a good judgment is nature's doing in the beginning and time's doing in the end. If it is in us to start with, a rich and concentrated experience will bring it out. Especially will long association with one's chosen work develop within him a certain power of judging in those matters. Thus our great engineers are made. The man neglected by nature can never acquire a power of judging worth while; the average man will certainly acquire by experience a good judgment in his own business; the man gifted by nature will be able to build up a power of judging based even on the experience of others. It is our business to help our pupils realize whatsoever capacity of judging nature has bestowed upon them.

Problems for Further Study

1. The Characteristics of Judgment.
2. The Logical Classification of Judgments.
3. Distinctions between Judgment, Understanding, Belief, and Doubt.
4. Brentano's Theory of Judgment.

References on Judgment

Angell, Psychology, pp. 225–234.
Compayré, Psychology applied to Education, ch. VI.
Creighton, Introductory Logic, ch. XXI.
Dexter and Garlick, Psychology in the Schoolroom, ch. XI.
Everett, Science of Thought, pp. 93–105.
Knowlson, The Art of Thinking, ch. IV.
Royce, Outlines of Psychology, pp. 255–257.
Schaeffer, Thinking and Learning to Think, chs. I and VIII.
Sully, The Teacher's Handbook of Psychology, pp. 363–375.
Tompkins, Philosophy of Teaching, 183–203.
Welton, Logical Bases of Education, ch. V.

CHAPTER XIV

TEACHING TO REASON

As in many of our discussions heretofore and to follow, it is necessary here also to omit purely theoretical inquiries and to select for consideration only those matters that will lead to practical conclusions. Passing by, then, such matters as the nature and kinds of reasoning, let us consider certain contrasts that exist between inductive and deductive reasoning, the bearing of these two kinds of reasoning on teaching, and, finally, certain suggestions in teaching the mind to reason.

Induction and Deduction Contrasted.

Let us begin by contrasting induction and deduction. First, in induction the mind first observes particular and typical instances and then reaches an inference, as when the chemist, having observed that some metals are elements, concludes that all metals are elements, or when the plain man, having seen many black crows, concludes that all crows are black. Its principle is that what is true of some members of a class is true of all members of that class. Of course in the application of this principle induction often makes mistakes, to be corrected by later observation. In deduction, on the other hand, the mind first draws a particular conclusion from some general principle with which it starts, and then observes whether its conclusion is true, or ought so to do, as when we conclude that copper is

The Instance *vs.* the Principle as a Beginning.

an element because it is a metal and all metals are elements, or when the plain man expects that the crow he hears but does not see will be black when he catches sight of him because all crows are black. In induction, first observe, then conclude; in deduction, first conclude, then observe.

Formulation *vs.* Explication.

Second, induction leads to the formulation of principles, as when Socrates by induction reached the conclusion that knowledge is virtue, that if a man knew what was best for him, he would do it. Deduction, on the other hand, leads to the explication of principles, as when Socrates concludes further and in harmony with his first principle that no man is voluntarily wicked, but that the wicked are ignorant. Thus induction defines; deduction illustrates.

Part *vs.* Whole as a Beginning.

Third, induction moves from part to whole of a system or class or group, as when the scientist from his observations of many mammals tells us that all mammals are vertebrates. Deduction moves from the whole of a system, class, or group to a part of the same, as when, from the previous instance, we conclude that the whale is a vertebrate, knowing it is a mammal. Induction is from the individual to the general; deduction is from the general to the individual.

Probability *vs.* Certainty.

Fourth, induction, having a number of particular observations as its premises, leaps beyond them in its general conclusion, as in the statement, "Every human heart is human." For this reason induction can never give us more than a high degree of probability in its conclusion. Deduction, on the other hand, stays within its premises, as when under the foregoing princi-

ple one concludes that the criminal has a human heart. Thus deduction, if its premises are true, attains certainty in its conclusion. This is a very large "if," however, as very few general principles are above question in their universal application. In induction the conclusion is larger, in deduction smaller, than in the premises.

Discovery *vs.* Proof.

Fifth, induction through its observation of and experiment upon new instances is the method whereby knowledge is advanced. Modern science in its advancement of human learning dates, for example, from the "Novum Organum" (Induction) of Francis Bacon. Deduction, on the other hand, uses the knowledge that has been attained in concluding concerning particular instances; it arranges and systematizes all things according to genera, species, and individuals. Ancient science, for example, ended with Aristotle's "Organon" (Deduction); and the Middle Ages, under Aristotle's influence, made no observations, but classified all things. Induction is the logic of discovery; deduction is the logic of proof. In fairness to deduction at this point it must be observed that, after induction has begun to observe, progress in discovery is most rapid when deduction supplements induction at every point, anticipating a conclusion which observation is to test.

The End of Induction is the Beginning of Deduction.

Sixth, after the preceding contrasts it will not now be surprising to say that induction provides the general principles with which deduction starts. At this point we begin to feel the mutual dependence of induction and deduction, and the unity of the reasoning process. If Aristotle had not been such a wide observer and had

not thus provided his successors with so many general principles, the Middle Age period of deduction would have been shorter. Induction is the beginning of the process of knowledge which deduction concludes. Dogmatic minds, trusting to the perfection of the deductive syllogism, tend to forget that their major premises are all inductive conclusions and are thus tinged with the element of probability. We still live, even in rational matters, by faith, not sight.

Formation *vs.* Application of Habits.

Seventh, and finally, inductions are our mental habits in process of formation; deductions are our mental habits in process of application. Our mental experience is a unitary process in which we are constantly both building up new general principles for ourselves and applying those already built up. The new element coming into experience modifies the old; the old element already in experience modifies the new. Induction is the influence of the new on the old; deduction is the influence of the old on the new. Thus we reach the conclusion that though there are many and striking contrasts between induction and deduction, at bottom our reasoning process is a unity. If we had time to investigate this reasoning process itself, we should probably discover that it is the highest and most complex means at the disposition of the intellect of man to adjust him to his environment, and that its essential nature consists in perceiving the relationship between two things by means of some third thing. To tell a crying child to "hush up" is not to reason, but, knowing the inability of his attention to cover many things at once, to engross his attention with something

else than his trouble that he may stop crying is to reason.

The Bearing of Induction and Deduction on Teaching.

Turning to the bearing of induction and deduction on teaching, several things are to be noted. In the first place, the inductive method of teaching begins with the individual and the concrete and moves toward the general and the abstract: the deductive method of teaching begins with the general and the abstract and moves toward the individual and the concrete. In short, induction first illustrates and then states the principle; deduction first states the principle and then illustrates. This very paragraph, for instance, is proceeding in deductive fashion. Most text-books do the same way. Perhaps it is not necessary to add that, with a few illustrious exceptions, like Socrates and Pestalozzi, the deductive method of teaching is the old way, that the inductive method of teaching, so far as present at all, is the new way. The old way does not need to be illustrated. The new way would be illustrated in teaching English by beginning with language, not grammar; in Latin, by beginning with Cæsar instead of a grammar; in mathematics, by beginning with examples instead of rules; in science, by beginning with specimens instead of classes; in history, by beginning with sources instead of compendiums. We are not yet estimating these two methods, but only describing their bearing on teaching.

Illustrations *vs.* Principles.

Acquisition *vs.* Reproduction.

Second, induction utilizes the acquisitive powers of the mind, like observation and explanation; deduction utilizes the reproductive powers of the mind, like memory

and application. Induction leads the pupil to inform himself; deduction informs him. The pupil who informs himself under the guidance of the teacher appreciates and comprehends principles better than when he is informed by the teacher; on the other hand, the pupil who is informed by the teacher has a larger and more rounded attainment.

Learning *vs.* Teaching in the Race.

Third, induction is the way the race has learned, and so when used by the teacher requires both time and patience. Deduction is the way the race has usually taught its children, thus very quickly putting them abreast of the learning of their ancestors.

Independence *vs.* Authority.

Fourth, induction cultivates the sense of mental independence; this is evident in the radical and progressive temperament that characterizes scientists as a body. Deduction cultivates the sense of authority, and mental dependence upon it; this is evident in the conservative temperament that characterizes religious institutions.

The Division of Honors.

It is very evident from these considerations that the honors have to be divided between the inductive and deductive methods, and that, in conformity with the suggestion about the unity of reasoning, our present problem is not to exclude one method or the other, but to adjust them properly. This conclusion is confirmed by the further observation that whether we are reasoning in acquisition or in application, the same mental powers are necessary for efficiency, viz. the presence in consciousness of a considerable amount of usable knowledge, the power to analyze the situation confronting consciousness into its elements, and a certain

wisdom in selecting that element which will lead to a conclusion; "learning," analysis, and "sagacity" make good reasoners.

Having now seen the contrasts between reasoning inductively and deductively, and the bearing of the inductive and deductive methods on teaching, we are ready to attempt to adjust the claims of each method, and to make certain practical suggestions to teachers in cultivating the rationality of pupils.

Practical Suggestions for Teachers.

Use Both.

The best method of teaching is neither the inductive nor the deductive, but a wise combination of both. Indeed, it is an unpractical abstraction to think of using either to the exclusion of the other. As Hegel combined the deduction of Aristotle and the induction of Bacon in his unitary science of logic, as the modern psychologist finds reasoning one of the unitary functions of the mind, so must the teacher lead his pupils both to induce and to deduce. Our teaching cannot all be inductive, — it would take too long. Induction is the slow process by which knowledge in the race is accumulated; the school cannot take the time to rediscover all this knowledge. But sufficient examples should always be given, and this is the point about inductive teaching, both to induce the principles and to make them clear. Neither can our teaching all be deductive, which would lead to formality and barrenness, as in the *memoriter* processes of Jesuit schools. We must affirm with Spencer, "Children should be told as little as possible, and induced to discover as much as possible." But sufficient knowledge should be attained, and this

is the point about deductive teaching, to put the pupil during the school career into adjustment with the intellectual acquisitions of his race. The great business of the universities is to advance knowledge; the schools must content themselves with the wide task of disseminating it among the people. In short, use the inductive method in schools enough to make knowledge vital and objective, the deductive method enough to make knowledge systematic and comprehensive.

Suit the Method to the Subject.

In general it is true that all subjects in the curriculum admit of being taught both ways; also each subject should be taught to some extent in each way. Still, it is true that certain groups of studies lend themselves naturally to one method, and other groups to the other method. The physical and natural sciences, for example, like physics, chemistry, biology, botany, etc., absolutely demand that main emphasis be laid upon the inductive method. In this group of studies to observe, to experiment, to explain, to see and handle things face to face, to put questions to nature, are all-important. The mathematical sciences, on the other hand, continually making new applications of old axioms and theorems, easily emphasize the deductive method. The thing to be watched here is that the deductive proof of a theorem is understood and not memorized. Other groups of studies, like literature and history, seem to have no inherent tendency toward either method; they have usually been taught deductively; they need to be taught inductively more.

Induce Principles.

Regardless of the specific subject taught, it is important near the conclusion of each recitation to have

the class sum up in the form of an induced principle the many individual points of the lesson covered. Induce the underlying truth of every lesson; end by generalizing the new material that has been presented point by point. Here induction appears, and without it the significance of the details does not appear and the mind is left in confusion. In addition to clarification, induction is a mental economy, as it is able to say many things at once.

Make Applications.

Along with this principle goes the other one, the conclusion just induced should at once be applied to new cases,—to new examples in mathematics, to new sentences in grammar, to present events in history, etc. The generalization which the new material affords must itself be applied. The habit of giving out problems is a fruitful one in any subject; it means the application of knowledge to new cases. First observe, then induce, then deduce, then observe; this is the big circle both in reasoning and in teaching.

Dealing with the Young Reasoner.

It is surprising how early the embryonic powers of reason begin to show themselves in children. The "why" of things interests them long before they are able to understand, often to the exasperation of parents and teachers. It becomes a real question how to deal with the earlier signs of a developing reason. Children often want to know what they cannot understand. What are we to do? Several things. Show no impatience with the instinct of curiosity, it is at the bottom of all knowledge. Crowd on the knowledge in reply to the instinct as rapidly as it can be made intelligible. When the limit of intelligibility is reached, as in the question,

"Who made God?" it does not satisfy the child to be told to wait, nor does it satisfy him to put him off with a foolish answer, such as, "I don't know—I guess He must have made Himself," which only stimulates the child's mind to further questioning as to which part of Himself He made first. Rather, on the verge of intelligibility, give your best answer to the child, "He is eternal and unmade;" the interesting thing is that, though unintelligible to the child, it is emotionally satisfying, the eyes open wide in wonder, and the mind turns to something else. A child three years old will feel a reason it cannot understand.

Answer then the child's inquiries sympathetically and as intelligibly as you can. Go even farther and ask him some questions in reply, setting easy lines of inquiry before him. Once we are alive to our surroundings, it is surprising how many questions nature is continually suggesting to us, that we may suggest to children ready for them. Why does the sun harden clay and soften wax? Why does cold freeze water? Why is ice lighter than water? Every detail of our environment is significant with rationality. It permits us to stimulate, as well as to satisfy, the child's instinct for truth. The curiosity that we quell at seven we shall miss and want at fourteen.

The satisfaction and stimulation of the instinct of curiosity in children must not be confused with the child's desire to evade an authoritative command by parleying concerning the reason. Here it is enough that the parent or teacher has spoken. To discuss the rationality of obedience is not within the province of

children. At this point the word of George Eliot is permanent, "Reason about everything with your child, you make him a monster, without reverence, without affections."

Study Logic.

As a last suggestion to teachers in connection with reasoning, I should like to refer to the advantages coming to themselves from a careful study of inductive and deductive logic.[1] Among many good things to result from such a study may be mentioned an acquaintanceship with the reasoning powers of consciousness, an emphasis upon the necessity of clear thinking to oneself and before others, a sense of the unity of all truth and the desire so to present it, and also a working familiarity with the commonest fallacies that beset the reasoning of pupils, teachers, and all mankind alike. Our logical processes are still so slightly developed that frequently we are in intellectual error unawares, frequently too we are unable to extricate ourselves on discovering our illogical position, and, worst of all, such intellectual confusions disturb our sense of equanimity no whit. We ought to repent of bad thinking, and of loving ugly art, second only to selfish conduct, and, having repented, to gird ourselves, through logical studies, for walking in the strait and narrow way of correct thinking.

Summary of Intellectual Education.

With the conclusion of reasoning we are brought to the end of our discussion of intellectual education. A brief survey of the field covered shows us the mind at work intellectually, getting sensations, interpreting

[1] For example, Welton, "The Logical Bases of Education."

them as perceptions of individual objects, reacting upon the world apperceptively in terms of acquired experience, remembering the past, imagining both actual and ideal forms, conceiving truth in generalized notions, judging concerning reality, and reasoning from part to whole and from whole to part. This intellectual machine of man is wonderful in itself, — as we realize it part and whole, most wonderful. But it is given us, not to admire, but to use. The motor-power that runs it is the feelings, and the purpose for which it runs, a purpose inherent in its own nature and in which our wills concur, is to attain a knowledge of the truth. This knowledge of the truth is an increasing intellectual adjustment to physical and mental realities, in the light of which our choices for the conduct of life may be wisely made. I have used the figure of a machine to cover the workings of the intellect of man; the figure of a live organism would have been more apt, an organism that develops successively its ever higher powers. The delicate work of the teacher, requiring knowledge, sympathy, and devotion, is to stimulate the growth of this organism into its fullest realization. In summary at this point we may say, intellectual education is the development of mental capacity through mental action; it is the liberation of the human powers through the knowledge-getting activities.

Illustration.

As an illustration of the kind of intellectual education here suggested, I will append the following quotation from an address, unpublished as far as I know, by Rev. Samuel A. Eliot: —

"What then, in a word, did Harvard do for Emerson? To the ancestral faith incarnate in his blood, to the shrewd Yankee common sense he inherited, to the New England conscience which was his birthright, to the training of a godly and simple home, it added the education which does not consist in conning text-books, but in a widening of horizon, an enlarging of experience, a deepening of purpose. Harvard taught him not only facts, but what facts stand for and represent and predict. There he found the way in which to turn sight into insight. He discovered how to understand and master circumstances by knowledge and obedience. His education was no formal process. Its distinctive quality may be said to have been, not range of knowledge, but vitality of knowledge, not scope, but depth, not possession of information, but enlargement of view."

Problems for Further Study

1. The Nature of Reasoning.
2. Do Animals Reason?
3. Is Sense-perception Unconscious Inference?
4. Radicalism, Conservatism, and Reasoning.

References on Reasoning

Baldwin, Senses and Intellect, ch. XV.
Compayré, Psychology Applied, etc., ch. VII.
Cramer, Talks to Students, chs. XVII, XVIII, XIX, XX.
Creighton, Introductory Logic, ch. XXIV.
Dexter and Garlick, Psychology in the Schoolroom, ch. XII.
Fitch, Educational Aims and Methods, Lect. IV.
James, Principles of Psychology, Vol. II, ch. XXII.
James, Briefer Psychology, ch. XXII.
Ladd, Primer of Psychology, ch. X.
Landon, Principles and Practice of Teaching, etc., pp. 320–329.

Landon, School Management, pp. 98–108.
Laurie, Institutes of Education, Part II, Lect. VIII.
Royce, Outlines of Psychology, pp. 293–296.
Schaeffer, Thinking and Learning to Think, ch. XVI.
Sully, Teachers' Handbook, etc., pp. 375–406.
Welton, Logical Bases of Education, chs. V, VI, and IX.

PART III

EMOTIONAL EDUCATION, OR EDUCATING THE MIND TO FEEL

INTRODUCTION

The Order of the Discussion.

In passing through feeling on our way from intellect to will, our order is historical and conventional. If the order of our discussion took its cue from the biological development of body and mind, perhaps the feelings would have come first, the will next, and then the intellect. But since consciousness after all is a unity in its functioning, the question of the order of discussion of its abstracted phases is not paramount, and there are some advantages in following traditional usage. In the famous list of epithets describing education, viz. physical, intellectual, and moral, I simply want to succeed in inserting *emotional* between "intellectual" and "moral," and adding *religious* to the group in the interest of a worthy completeness.

The General Aim of Emotional Education.

It is the aim of emotional education in general to develop the mind's capacity to feel; especially to cultivate a certain sensitiveness to the best things in life. The supreme ideal to which feeling can attach itself is beauty. On the way to beauty many are the objects about which feelings cling, and for the final development of an æsthetic taste, many are the stages of differentiation in the life of feeling. It is the business of emotional education to follow helpfully all the differentiations of the life of feeling as they attach themselves to various objects until the goal is reached in appreciation of the beautiful.

Stages in the Treatment of Emotional Education.

The psychologists are puzzled when it comes to classifying the feelings; they are almost as badly off when it is a question of showing their genetic development. Indeed, the very definition of feeling is something of a quarrel, and there is also no agreement as to whether consciousness should be regarded as twofold, lumping feeling and will, or threefold. Where such confusion reigns, I have tried to make a natural and genetic mode of attack upon this most attractive field, beginning with an attempt to describe feelings; then indicating the available educational ways of dealing with them in general; then in particular considering the elementary feelings of the pleasant and the unpleasant; then the complex feelings, both of the coarser and subtler types, using as instances of the latter the altruistic and the æsthetic. With this guiding thread I trust no reader will get lost in what at best is somewhat uncertain territory.

CHAPTER XV

DESCRIPTION OF THE FEELINGS

The Primacy of Feeling.

It is perhaps true that the feelings represent the deepest strata in human life. They seem to be biologically the primordial element in conscious life. In lower animals, in primitive man, and in children, the emotional elements seem to dominate over the intellectual and volitional. The nerve-centres that correspond to the feelings develop earlier than those that correspond to rational thought and deliberate action, and man as an emotional being differs less from children and animals than as an intellectual or moral being. It is not that sensations and reflexes are absent in primitive forms of life, for they are not; but they seem slower in passing on to the higher types of thought and action than do likes and dislikes in passing on to complex emotions. This primacy of feeling refers here to their early development in the race, not necessarily to their prepotent influence in mature, civilized life. The practical bearing of this primordial character of feeling on educating indicates the necessity of including the feelings both as means and as material in dealing with young life. They are both to be developed themselves aright, and utilized in securing study and worthy conduct.

The importance of feeling in life, both young and

The Importance of Feeling. An Essential Element of Consciousness.

old, will appear from a series of considerations. First, feeling is an essential element of consciousness; that is, without feeling, no consciousness. The element of feeling may be uppermost at any given time, or it may be secondary to the influence of ideas or choices, but in any case it is never totally lacking. Though there is a theory that the original consciousness was just a feeling, perhaps of comfort or more likely of discomfort, and the paragraph above would lend weight to this view, still it is probably true that no state of consciousness to-day is just feeling and nothing else; not even the discomfort of the dentist's chair is divorced from all sensation and images and will. To call feeling an element of consciousness means it is always present but never alone.

Values.

Second, the feelings give values to life. The sense of value, of importance, of worth, is a feeling; the sense of fact or truth is intellectual. What is worth while to a man depends on the attitude of his feelings toward the things in question. Life itself is and is not worth living to different individuals. As Professor Royce has expressed it, "If we look for a simpler criterion of what we mean by feeling, it seems worth while to point out that *by feeling, we mean simply our present sensitiveness to the values of things* in so far as these values are directly present to consciousness." [1]

Art and Religion.

Third, it is a defensible position that the feelings are the main, though not the only, agency in producing art and religion. Thought is there to direct, will is there to execute, but feeling is there as the inspiring dynamic.

[1] Royce, "Outlines of Psychology," p. 167 (italics his).

Art is the product of man's feeling for the perfect, is the union of his ideal and the real, — the ideal that would satisfy his feelings is approximately embodied in some real, tangible, or sensuous form. Poetry, as illustrating the arts, Poe somewhere defines as "the rhythmical creation of beauty." And in the case of religion, the great Prussian theologian Schleiermacher has been followed by many[1] in his conclusion that the root of religion is in the feeling of man's dependence (*Abhängigkeitsgefühl*). To this foundation others would add the æsthetic feeling as also elemental. Of course, the trunk and branches of religion are thought and action, though its roots be feeling. The intimacy of the relationship between art and religion as grounded in feeling appears in the consideration that when "the perfect" for which man longs is a Person, then art becomes religion.

The Great Influence of Feeling.

Fourth, many maintain that the feelings are not only the primordial element in conscious life but also that they are the most influential, transcending in prominence both rational thought and deliberate action. The example and writings of Rousseau and George Eliot and the romantic movement in literature might be cited as illustrating the dominating place of feeling in life; also the opinion of such an intellectual type of man as President Eliot, who writes: "The world is still governed by sentiments, and not by observation, acquisition, and reasoning; and national greatness and righteousness depend more on the cultivation of right

[1] Cf., for example, Everett, "Psychological Elements of Religious Faith."

sentiments in children than on anything else." [1] Without committing ourselves fully to the argument that the feelings are more influential than reason or will, it would be correct to say that without feeling we neither learn nor achieve; interest leads us to pursue truth, and desire prompts us to action.

In Future.

And fifth, the future history of feeling will be greater doubtless than its past. Only late in the history of thinking and education have the feelings had justice done them. Plato made the feelings subordinate in dignity to the reason, as the soldiers in his ideal Republic were subordinate to the philosophers. Aristotle said consciousness was composed of intellect and will, and his division still holds good to-day for such men as Herbart, with all his sweep of educational influence, Schopenhauer, Fechner, and Paulsen. The feelings first received independent recognition by Tetens in the eighteenth century, whose threefold classification of consciousness into knowing, feeling, and willing was made popular by Immanuel Kant in his three great Critiques, who is followed at this point by most, though not all, of our contemporary psychologists. Educationally, if we omit the attention to æsthetics among the Greeks, the feelings were practically omitted until interest and pleasure appeared in the schooling of Émile by the modern apostle of feeling. To-day President Hall is telling us that as the education of the past has been that of the head, so the education of the twentieth century will be that of the heart. The increasing psychological and educational recognition of

[1] Eliot, "The School," *Atlantic Monthly*, November, 1903.

feeling in historic times indicates the still larger rôle it has yet to play in life.[1] The revival of learning needs to be supplemented by the recognition of feeling, and the over-intellectualization of the curriculum needs re-adjusting to its subnormal emotionalism.

The Nature of Feeling.

When we pass from the importance of feeling to its nature, our task is more difficult. Wundt says the chapter on feeling is one of the darkest in the history of psychology. But it is necessary to do what we can to understand feeling before attempting to regard it educationally.

Indefinable.

We usually think when we can define a thing we understand it. But our ability to understand feeling does not depend on our ability to define it. In fact, an adequate definition of feeling is impossible; a feeling is an experience to which words cannot do full justice. He who has been anxious, or joyous, or surprised, knows these feelings; he who has never been so cannot be told what it is to be so.

A Working Definition.

However, a working, though inadequate, definition of feeling is possible. Thus we may say, feeling is the attitude of consciousness toward thought or action. The thought that *l'amour propre* is the prime motive of man, as Larochefoucauld said, or that our choices are predetermined from the foundation of the world, as Jonathan Edwards held, may excite within us feelings of antagonism; or, the act of a Guiteau or Czolgocz may arouse within us feelings of indignation. Some

[1] Cf. the conclusions of Stanley, "Evolutionary Psychology of Feeling."

thoughts and acts please, attract, delight, satisfy us; others displease, repel, sadden, or discomfort us; or the totality of the person as manifested through his thoughts and acts may excite within us affection or disgust. A more technical, though negative, definition of feeling is, "consciousness as experiencing modifications abstracted from (1) the determination of objects and (2) the determination of action." [1]

In Individuality.

We approach closest to the nature of feeling perhaps when we observe the inmost place it occupies in our individuality, closer to us even than our very thoughts or deeds; for our thoughts may be communicated, our deeds seen, but nobody can ever know exactly how we feel. Here we are in our individuality, inaccessible to dearest friend and foe alike. They may imagine our feeling, they may have similar feelings; they do not feel our feeling. Baldwin somewhere writes, "You can know what I know and you can will what I will, but you cannot by any possibility feel what I feel; this is subjectivity, this peculiar and unapproachable isolation of one consciousness from another." A man's feeling is his soul's barometer, telling his condition more nearly than either his thought or his deed. The feeling of anger is murderous, the feeling of kindness is saving.

Variability.

If feeling be the attitude of consciousness toward ideas and acts, it will not surprise us to observe that it is further the nature of feeling to change its character through the influence of new ideas and new acts. You

[1] Baldwin's "Dictionary of Philosophy and Psychology," article "Feeling."

have a feeling of antipathy for a certain person. Suppose you incidentally learn he has shown his good will by rendering you a favor. Your feeling of antagonism begins to weaken. Or, you have a feeling of indifference toward a certain philanthropic cause. You are induced either to inquire into it or to render it some support. Perhaps a genuine interest supplants the original indifference. This characteristic of feeling is evidently the handle educators are to seize, — to get hold of feelings, supply new ideas, and secure some responsive action.

Slowness of Change.

And, contrary to general impression, it is the nature of feeling to move more slowly than either ideas or choices. Ideas must change, or actions, or both, before feeling changes. Often it takes many new ideas to dislodge a feeling of prejudice against a member of another race or a person in another social position. A feeling of conviction on a question at issue once reached, many and unanswerable arguments on the other side may not suffice to change it, — we are "of the same opinion still." Or, after long deliberation, a man makes a momentous choice, involving the future of self and friends. About this choice, like vines about a tree, the feelings of his after life grow up, sometimes sapping its strength, always finding their support in it. All of which goes to show feelings are deep down in our natures, clinging to old ideas and habits, slow to move, and, being moved, ready to root themselves again into the very fibres of our being.

The description of the feelings would be essentially

The Kinds of Feeling.

incomplete without an attempt at the analysis and classification of feeling. To describe in psychology is always to analyze. When we begin to analyze and classify the feelings, we find here a vast complex wealth of emotional material, not subject as yet to the definite groupings possible in the region of the intellect, where the best psychologists are in disagreement, and where, consequently, all divisions are somewhat arbitrary. However, divide we must, to conquer this complicated realm.

Elementary and Complex.

The simplest distinction to draw is that between elementary and complex feelings. The elementary feelings are those that we get through the analysis of

The Elementary Feelings.

feeling into its lowest constituents, just as we get sodium and chlorine as the elements of common salt. Now, the one thing on which all the psychologists agree is that the sense of the pleasant and unpleasant are elementary feelings, simple, ultimate, not capable of further analysis. The best we can do here is to use synonyms and say the pleasant is that which has a certain sense of attractiveness for consciousness, and the unpleasant is that which has a certain sense of repulsion for consciousness. We are not defining, but illustrating the impossibility of definition. The pleasant and unpleasant are ultimate feeling-tones of consciousness. The sense of the unpleasant, the disagreeable, the discomforting, the repellent, which is a feeling, must not be confused with physical pain, which is a sensation. A feeling originates in the attitudes of consciousness; a sensation originates in a stimulus affecting some sense-organ. It is thus incorrect to

refer to pleasure and pain as the two elementary feelings; the elementary feelings are at least the pleasant and unpleasant affective tone of consciousness. It is correct, however, to observe that the sensation of pain normally arouses the elementary feeling of displeasure or the unpleasant. Into the additions to these elementary feelings made by Wundt and Royce we need not go as beside our practical purpose, but the interested reader is referred to the literature of the subject.[1]

The Complex Feelings.

The complex feelings are the emotions, that is, they are feelings complicated with sensations, ideas, images, and tendencies to action. They are the elementary feelings shot through with the influences of thoughts and deeds. The physical organism furnishes those sensational reports so constitutive of the character of an emotion. Indeed, we may serviceably divide the emotions according to the extent to which the bodily expression of the emotion is a conspicuous part of it. The coarser emotions, like fear, anger, hate, joy, grief, jealousy, love, are those in which the physiological expressions are prominent; the finer emotions, like self-respect, sympathy, wonder, and the æsthetic, moral, and religious sentiments, are those in which the physiological expression is an almost, but not quite, negligible quantity.

The Coarser and Finer Emotions.

Summary of Kinds of Feeling.

Thus, in sum, we have analyzed the feelings, first, into the elementary and complex; and again, the complex feelings themselves into the coarser and finer

[1] Wundt, "Outlines of Psychology," pp. 74–90; Royce, "Outlines of Psychology," pp. 176–19; cf. also Angell, "Psychology," pp. 258–259.

emotions. This picture of the kinds of feelings, from simplest pleasure to highest sentiment, will serve us practically when we come presently to consider the educator's way of dealing with each type of feeling.

The Growth of Feeling.

In the description of the feelings but one point remains to be considered before we are ready to treat them pedagogically. We should like to know the order in which the feelings naturally develop from childhood, through youth, up to maturity. This is the genetic account of feeling, a point of view introduced into psychology largely through the influence of the biological sciences, and wonderfully helpful to the teacher who would fall in with nature's ways of working.

Stages of Growth.

The stages in the development of feeling differ from each other according to the object, whether idea, act, or person, to which the feelings attach themselves. In childhood, the feelings centre about the self; in early adolescence, about other selves; in late adolescence and maturity, about certain ideals. Thus as the individual develops we have in succession the egoistic feelings, the altruistic feelings, and the ideal feelings.

The Egoistic Feelings.

The egoistic feelings are those that attach to the self as object. Examples would be the love of self, of pleasure, and possession, pride and vanity, fear, anger, joy, and grief. The child is not a conscious egotist, he is an instinctive egoist. The instinct of self-preservation which lies so deeply in the past of the race and in its present nervous system wells up spontaneously in the child's deeds. He is not to be censured, but to be understood. His apparent selfishness, crying aloud in

need and crowing with satisfaction, is nature's way of calling the attention of his elders to him. The great pedagogic thing to do here is to secure transition to the second stage and so prevent what is really selfness becoming selfishness. This problem we must attack in a later chapter (ch. XIX). Here it is only to be noted that it is life in society that permits egoism to be sublimated in altruism.

The Altruistic Feelings.

The altruistic feelings are those that attach to other selves as their object. Examples would be love and hate, friendship, respect, sympathy, emulation, patriotism, where the object is one's country, viewed as the nation's self. Since Aristotle pointed out that man is by nature a dweller in cities, the social disposition of man has been recognized, though only negatively in the social contract theories of the eighteenth and earlier centuries. The right utilization of life in society brings the egoism of the child into the altruism of the youth. The personality is widened to include other selves. Not so much that the self is forgotten, as that others are remembered. With the development of rational thought in adolescence, the youth becomes conscious of certain ideals toward which his feelings now reach out in aspiration.

The Ideal Feelings.

The ideal feelings are those that attach to certain ideals as their objects. An ideal is an idea pursued as an object, it is that unattainable object whose pursuit is in itself satisfying. The ideals of man, in view of his threefold nature in unity, are truth, beauty, goodness, and God: truth for his intellect, beauty for his feelings, goodness for his will, and God for himself

as a unit. Toward each of these ideals man in later youth and maturity develops certain feelings, the ideal feelings, sometimes called the sentiments. Their list includes the intellectual feeling, in its various forms of ignorance, wonder, curiosity, interest, surprise, and love of truth; the æsthetic feeling, as related to the beautiful, the sublime, and the ridiculous; the ethical feeling, or the love of the ideal of goodness, which is inseparable in its development from the altruistic feelings; and the religious feeling, the sense of dependence on, and trust in, divinity, a feeling also intimately connected with the altruistic feelings, for God is the Ideal Self and "the Great Companion."

The Preservation of the Earlier Stages.

These three stages in the development of feeling stand to each other like a series of concentric circles, each one larger than the last. In becoming altruistic, the youth carries his egoism along with him, but it is absorbed in the higher stage; so in coming under the influence of the ideals, he brings along with him both his egoism and his altruism, only they are felt and seen in their true perspective and real relationships. The later extension of personality absorbs the truth that was in the earlier immature stage of growth. It is the problem and the privilege of the teacher to see that the pupils are issued in nature's stately procession into wider and ever wider regions of the Self.

To assist him in so doing, so far as the life of feeling is concerned, we must now turn to those general principles which must serve as the beacon lights of his practice.

Problems for Further Study

1. The Ultimate Aspects of Consciousness.
2. The Elementary Feelings.
3. The Psychological Explanation of Feeling.
4. The Decay of the Emotional Life.

References on the Description of Feelings

Baldwin, Feeling and Will, ch. V, and pp. 186–194.
Calkins, Introduction to Psychology, chs. IX and XX.
Dewey, Psychology, ch. XIV.
Ladd, Outlines of Physiological Psychology, pp. 381–391.
Ribot, Psychology of the Emotions, ch. X.
Royce, Outlines of Psychology, pp. 163–184.
Spencer, Principles of Psychology, Vol. II, Part IX, ch. IX.
Stanley, Evolutionary Psychology of Feeling, ch. XVII.
Stout, Manual of Psychology, pp. 284–311.
Titchener, A Primer of Psychology, ch. XII.

CHAPTER XVI

PRINCIPLES OF EDUCATING THE FEELINGS

HAVING just described the complex wealth of feelings as a whole, we must now undertake to state those general principles which are to guide us in educating them.

Reach Feeling indirectly.

First and deepest of all is the principle that the feelings must be reached indirectly through ideas and action. There is no direct cultivation of a feeling; it cannot be approached immediately. Like the vine to its trellis, the feeling grows up about some strong idea lodged in consciousness, or some noble deed of conduct. Think the thought, good or bad, do the deed, right or wrong: and the feeling appropriate to it is aroused. Passions are generated through their exciting ideas; emotions tread on the heels of significant deeds. Anthony enrages the Roman populace with his deftly suggested ideas; their own deeds of violence and rapine once begun, their fury is an infatuation until exhausted upon its object. To secure a desirable feeling, give the fitting idea and secure the associated act.

To be specific, the young child with whom we start is selfish, thinking more of *meum* than *tuum*. As he grows, we desire that he shall have increasing regard for other worthy interests than his own, until indeed

he first shares, then shares alike, then shares with many. How shall we assist him to outgrow his natural selfishness? Only by securing from him those definite deeds that mean regard for others, only by suggesting those ideas that mean the recognition of others. Home, friends, town, state, country, these are ever present objects to which we must secure specific deeds of service and concerning which we must instill attractive ideas.

The Unity of Education.

From the statement and illustration of this principle, it is evident that there is no education of the feelings apart from the education of the intellect and the education of the will. It is through the ideas of the intellect and the acts of the will that the desirable states of feeling are secured. The consciousness that we educate is a unity; the means that we use in educating are a unity; and the education that we secure is a unity. The high thinker and pure actor have fine feelings.

The Aim of Emotional Education.

In view of this educational unity, we recognize clearly the aim of all education of the feelings, viz. to develop such feelings as will stimulate the intellect, motivate the will, and appreciate the beautiful; the great feeling that stimulates the intellect, lying at the basis of all scientific investigation, is the love of truth. The great feeling that motivates the will, keeping it steady and true in the midst of all trying and unworthy solicitations, is the honest love of right. The cultivation of the feelings that can appreciate the beautiful, that can sense the perfect in nature and art, is the choicest task set the educator of the feelings.

An Error to be avoided.

An error to be avoided is talking to our pupils about the feelings they ought to have, *e.g.* interest in their studies, instead of bringing those conditions about that will produce the desired feeling. From the very nature of a feeling, it cannot be gotten by describing it. In fact, since it is an ultimate constituent of consciousness, a feeling cannot really be described. Our pupils must be made to feel feelings, through true and vivid ideas and right action, and not hear inadequate descriptions of them.

Secure Right First Expressions of Feeling.

Whenever a feeling is once present, whether aroused instinctively or by the teacher's art, the natural thing is for it to express itself in some way through the motor channels of the nervous system. Here the great achievement for the teacher is to effect right motor expressions, to couple the strong emotions particularly with serviceable outlets. To fail to do so is to let the emotion evaporate, and so to weaken it as a future dynamic; or else to let it run out in unworthy channels, and so tend to give a wrong set to the nervous system. It is especially desirable that great first emotional experiences coming upon children and youth should at once be drafted off into correct motor expressions. "The laws of brain-habit determine the principle that when experiences are keen and novel, any reaction then accomplished determines the brain's whole future to a degree never later equalled by other actions of the same sort and number." [1]

The Danger of Emotionalism.

The teacher who is successful in stimulating and arousing the emotional life must beware of overdoing

[1] Royce, "Outlines of Psychology," p. 345.

it. Too much feeling disturbs clear thinking, judgment, and reasoning, and makes character unreliable. Proportion must be maintained between rationality, action, and emotion. It is not desirable to disengage a larger amount of emotion than will serve our purpose, viz. to keep the mind studiously occupied and the conduct constantly considerate. Waves of emotion that dethrone thought and overstimulate unconsidered action we need both to avoid in ourselves and to discourage in others. This caution is particularly necessary to heed in dealing with those pupils whose individual variations are in the direction of the strongly emotional type. With the anæmic type, the naturally weak emotional natures, those colorless characters without either love or hate in their constitutions, we may put no check on our effort to make life to these a more animating affair.

The Use of the Curriculum.

What agencies does the curriculum afford us in educating the feelings through the instillation of moving ideas? Our most effective instruments are art, literature, and history, though indeed we must think of no study as devoid of emotional interest. History, particularly when taught to young adolescents, should develop feelings of admiration for heroes, of disapproval of self-seekers, and of love of country. It would illuminate the problem of any teacher to secure from his pupils a list of their ideal heroes. Why not do it? Added force is given the feelings of admiration and disapproval just mentioned when they centre about conspicuous contemporary figures, rather than those of some remote past. Literature should develop a

loving appreciation of noble thoughts and a sense for their fitting expression, — thoughts which, cherished in memory, shall guide us like stars in the darkness of night. And art in its many forms should first abash us, making us feel our ignorance and incapacity, and then lift us into pure enjoyment of the beautiful and the perfect.

Regard the Physical.

In enumerating these general principles of educating the feelings, the subtle and elusive feelings, it would be the mistake of an unpractical idealist to omit regard for the physical basis of the emotional life. We want brave, courageous, heroic, hopeful, optimistic, joyous pupils; we cannot have them on bad air, cold rooms, poor food, scanty clothing, and lost sleep. No study of pessimistic authors is adequate apart from their health conditions, and that soul is cast in a heavenly mould that, like Stevenson, can pray in physical languishment for "courage and gayety and the quiet mind." The element of truth in the working hypothesis of modern physiological psychology, that brain states condition mental states, demands that the sound body house the sound emotion.

The Contagion of Feeling.

And finally, in these principles, rely upon the force of example and imitation. Show the feelings you desire to develop, but do not show them unless you feel them. "Assume a virtue if you have it not," as Hamlet said to the Queen, is no maxim for the teacher. No eyes so quick to detect your feigning as your pupils', and once detected, farewell to influence. But really to have and to show feeling upon significant occasions is a sure way to elicit emotional responses from

pupils. Nothing is more contagious than a feeling. As quick as an electric shock, the schoolroom vibrates with meaningful changes in the teacher's mood. From grave to gay, from gloom to cheer, from righteous indignation to pleasurable enterprise, the teacher's feeling is the pupil's feeling.

The Good of Sentiment.

Let us not underestimate the permanence of our service and the quality of our opportunity in cultivating a strong, inspiring emotional life in the youth of the land. As President Eliot has written, "The world is still governed by sentiments, and not by observation, acquisition, and reasoning; and national greatness and righteousness depend more on the cultivation of right sentiments in the children than on anything else. . . . Now, the sentiments which American schools ought to cherish and inculate are family love, respect for law and public order, love of freedom, and reverence for truth and righteousness." [1]

Problems for Further Study

1. Romanticism in Literature.
2. Emotionalism in Religion.
3. Feeling in Art.

References on Educating the Feelings

Bain, Education as a Science, pp. 52–120.
Compayré, Psychology applied to Education, ch. XII.
Dexter and Garlick, Psychology in the Schoolroom, chs. XVIII and XIX.
Harris, Psychologic Foundations of Education, chs. XXII and XXXVIII.
Holman, Education, pp. 56–63, 160–172, 193–197.

[1] C. W. Eliot, "The School," *Atlantic Monthly*, November, 1903.

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Oppenheim, Mental Growth and Control, ch. X.
Laughlin, The Moral Value of Art Education, *Proc. N. E. A.*, 1890, p. 141 and seq.
Ribot, Psychology of the Emotions, ch. X.
Santayana, The Sense of Beauty.
Samson, Elements of Art Criticism, pp. 192–197.
Schiller, Æsthetic Letters.
Stanley, Evolutionary Psychology of Feeling, ch. XVII.
Sully, Teachers' Handbook of Psychology, ch. XVI, XVII, or XVIII.
Thomas, L'Éducation des Sentiments, chs. III and XVIII.

CHAPTER XVII

THE PLACE OF PLEASURE AND PAIN IN EDUCATION

In the order of racial and individual development the elementary feelings of the pleasant and unpleasant precede the complex emotions; so in the order of our discussion of the specific kinds of feeling they must do the same.

The Nature of Pleasure.

Pleasure is a feeling, capable of various degrees of intensity, and apparently an ultimate constituent of consciousness without being subject to further analysis. As an elementary feeling it is the mental accompaniment of normal activity of any sort and of steady, smooth, uninterrupted thinking. The presence of pleasure signifies health and actual increase of vitality. It is a distinct benefit to the organism. That organism which found benefits unpleasant and injuries pleasant could not long survive in the struggle for existence.

The Nature of Pain and the Unpleasant.

A distinction must be drawn between pain and the unpleasant; pain is a sensation, and the unpleasant is a feeling. As a sensation, pain is the content of consciousness arising through an excessive or defective stimulation of some sense-organ; or indeed, as the physiological psychologists say, through the stimulation of certain so-called pain nerves; or, still again, through some not well-understood inner cortical excite-

ment. As a feeling the sense of the unpleasant, the disagreeable, the discomforting, is the attitude consciousness always takes toward the sensations of pain, as indeed toward any form of abnormal activity or interrupted, halting thinking. The sensation of pain together with its regularly accompanying feeling of discomfort and displeasure signifies unnatural physical conditions, disease, and decrease of vitality. Pain means injury to the organism. Even when survival is possible under habitually painful surroundings, growth is always slow and sometimes arrested.

The School a Place of Pleasure.

Considering the place of these experiences in education, it may be said that the modern idea is that the school should be a place of pleasure, and that pain and discomfort are tolerated only as occasional necessities. It should be a pleasure to teachers and pupils alike to live and labor in the school home, and also to remember it from afar. Here is the place where burdens are shared, friendships are made, and mature life enters naturally and gladly into immature life, thus making it the life abundant. Where pupils stand in physical fear of teachers, energy is wasted, thoughts are scattered, and mental progress retarded. The studies pursued should give that apocalypse of life in which the maturing consciousness rejoices. As Shakespeare puts into the mouth of Tranio, adviser of Lucentio, concerning his studies —

"No profit grows where is no pleasure ta'en."

And Sydney Smith is not all wrong when he says somewhere, "If you make children happy now, you make them happy twenty years hence." And those

happy grown-ups twenty years from now, in the midst of the busy details of life, will in gratitude continue and increase the support of that educational system which is the joy-bringer to youthful lives. The painful sensations and the discomforting feelings are occasionally really necessary in the modern school, but they are there as incidental, not regular, experiences, and as corrective and reformative, not vindictive or even retributive.

The Former School a Place of Pain.

This modern idea of the school as a place of pleasure is one of the signs of the educational progress that has been made within the memory of this generation. The mediæval school and its long line of successors was founded on the pain régime. In Shakespeare's famous seven ages of man the whining schoolboy with his satchel and shining morning face creeps like a snail unwillingly to school. No small contribution of Charles Dickens to educational practice was the arousing of the English conscience to the sufferings of pupils in schools. To many the old three R's meant "the rule of the ruler." And in his own vividly realistic fashion, Carlyle has told us in "Sartor Resartus" of the Hinterschlag professors who "knew syntax enough, and of the human soul this much: that it has a faculty called memory, and could be acted on through the muscular integuments by appliance of birch-rods."

Pleasure and Pain as Moral Consequences.

Another fact concerning pleasure and pain significant for educational uses is that they are the natural moral consequences in the end of good and bad conduct. The moral order of our world means at least that the ultimate issue justifies righteousness and

that wickedness cannot be committed with impunity. Not that the outcome alone, apart from the motive, gives the moral quality to the act, whether good or bad, but that the act and its conclusions are parts of one piece. The right and wrong are to be followed and eschewed because of both what they are and to what they lead. With young children having undeveloped moral perceptions, and often with children of older growth, the consequences of the deed are more influential than the moral quality of the deed itself. "Do right, though the heavens fall," is the motto of the morally quick soul; but, "do right, and the heavens won't fall," is rather the strengthening motto for the morally immature, whether young or old. Thus the observant Bain writes, "I should not be far out in saying that seventy-five per cent of the average moral faculty is the rough and ready response of the will to the constituted penalties and rewards of society." [1]

The Alpha of Moral Training.

Now, the significance for educators of pleasure and pain as moral consequences is twofold, practical and theoretical. Practically, indelible associations must be formed by the school order between the right deed once done and its consequent pleasure. Let no worthy deed go unapproved, speak the spontaneous word of commendation at the well-meaning and the well-doing of the pupils. Likewise, an association must be ingrained between the unworthy deed and its painful consequence. Once an unlovely deed is totally ignored, and the school so far forth ceases to be a moral order. And theoretically, following in the wake of the pre-

[1] Alexander Bain, "Education as a Science," p. 58.

ceding practice, certain definite lessons may be taught older pupils, such as, the painful consequences of wrong-doing and the pleasurable consequences of right-doing. It was one of the seven wise men of Greece, Chilo of Sparta, to whom are attributed those words of guidance, "Consider the end." It is a high and late type of organism that is capable thus of living consciously in the future in addition to the present; it is a privilege not shared by man with lower creatures, the abuse of which means that man's life, controlled by appetites and impulses of the moment, is lowered from its high estate to the animal plane of existence. Children, like animals, instinctively seek pleasure and avoid pain. The idea is so to link these elemental aims of action with right and wrong that the pupil's nervous system spontaneously and habitually does right and avoids wrong. This pleasure-pain basis is the alpha of moral training; its omega, let us hope, is that loftier region where right in itself is the object of love and wrong the object of hatred.

Problems for Further Study

1. Dickens as an Educator.
2. Corporal Punishment.
3. Rewards and Prizes.

References on Pleasure and Pain

Bain, Education as a Science, pp. 57–60.
Calkins, Introduction to Psychology, pp. 71–76.
James, Briefer Psychology, pp. 67–69.
Stout, Manual of Psychology, pp. 210–217.
Thomas, L'Éducation des Sentiments, chs. I and III.

CHAPTER XVIII

CONTROLLING THE COARSER EMOTIONS

After the elementary come the complex feelings, and the first class of the complex feelings we found to be the coarser emotions. These are such experiences as anger, hate, fear, grief, love, and jealousy. They are mostly instinctive in origin, imbedded in the nervous system of children, and only awaiting the fitting stimulus upon which to break forth. The problem of the teacher here is not so much how to arouse them as how to control them, once aroused. To assist us in solving this question, we must inquire somewhat carefully into their nature.

The Usual Theory of the Emotions.

Is the emotion the cause of its bodily expression, or is the bodily expression the cause of the emotion? Does a man tremble and quake because he is frightened, or is he frightened because he trembles and quakes? Do we cry because we are grieved, or are we grieved because we cry? Do we strike because we are mad, or are we mad because we strike? Until a few years ago there was but one answer to these questions, the former alternative in each case being defended. The perceived idea or object, it was held, caused the emotion, and the emotion caused the physical expression. We see a wild animal loose, we become frightened, and run away. Since it is the emotion

that causes the expression, this position is known as the "cause theory" of the emotions. Charles Darwin defended this view in his well-known volume on "The Expression of the Emotions." And it is still the customary view.

The James-Lange Theory.

But great names oppose it. A dozen years ago or so, Professor William James and the Danish psychologist, Karl Lange, brought out about the same time the contrary view, viz. that the emotion is not due directly to the perceived object and its influence on consciousness, but to those physiological expressions that at once follow the perception of the exciting object and report themselves to consciousness in the form of internal sensations. First the perceived object, then physiological changes in heart, lungs, viscera, etc., then the emotion. We see a wild animal loose, we have palpitation of the heart, cessation of breathing, rising hair, blanched cheeks, trembling limbs, etc., and then the emotion of fear. In brief, the peculiar *feel* of any emotion is due to the sensational reports from the bodily organs. Since it is the expression that causes the emotion, this position is known as the "effect theory" of the emotions. It has been adopted in whole or in part by those physiological psychologists who are ready to explain the mind by the body, but not the body by the mind.

Its Element of Truth.

The arguments for the "James-Lange theory," as it is called, cannot be wholly gainsaid. The man who has been insulted, but shows no signs of it without or within, does not really feel insulted, though he may

think he ought to feel so. The man who with smooth natural countenance and loose muscles calmly announced that he was raging mad would not be believed; and he whose grief has no moist eye, or broken voice, or lump in the throat, or contraction of the chest, does not really feel grieved. The sensational reports of the physiological changes consequent on the perception of the exciting object constitute thus an essential element in the emotion.

Its Insufficiency.

Exciting Ideas.

But to agree in part is not to agree in whole. Why should the perception of the wild tiger cause the bodily changes in question but for its own emotional quality? Not every object perceived thus sets the body out of gear. It is the dangerous, the insulting, the beloved, the hated, the missed, object that alone suffices thus to throw the body askew. Manifestly, some ideas are felt as exciting directly, and some are not; and it is the exciting ideas that can upset the body, while the unexciting ideas leave us unmoved. The insulting word is first understood, then rejected by consciousness, and the expression of its rejection appears physiologically.

Influence of Associations.

Again, reflection shows it is not the perception alone, but its associations, that cause the bodily changes. A child, for example, might not be afraid of the tiger, but rather interested in its black and yellow stripes. This shows that the mind contributes from itself something toward the emotion. The man is afraid because he knows; that he is afraid because he feels himself trembling is secondary. Now Professor James admits that the subtler emotions may be cerebral in origin,[1]

[1] "Briefer Psychology," p. 384.

that is, due to associated brain paths corresponding to the ideas that excite the emotions. This admission is all we need to show that the coarser emotions also in their early and incipient stages may be cerebral and not peripheral in origin.

Discrepancies.

Again, if the theory were strictly true, we should expect that different bodily expressions would give us different emotions, but we find, on the contrary, that such discrepant expressions as weeping and dancing may alike be for joy; also, we should expect that the same bodily expression would give us the same emotion, but we find, on the contrary, that tears may mean joy or grief.

Experiments.

And, finally, certain recent experiments of M. A. Mayer[1] on the influence of mental images on secretions show that the greater the pleasure taken in food the greater the quantity of the digestive secretions. Here the pleasure preceded and caused the secretions, the secretions did not cause the pleasure, though the comfortable stomachic sensations probably increased the pleasure.

Our Conclusion.

Putting all these objections together, and at the same time remembering the element of truth we found in this peripheral theory of the emotions, we must conclude that the coarser emotions are due to exciting ideas as well as to their accompanying bodily states. First the perceived object or idea, then the incipient emotion, then the physiological expression, and finally the intensified and full-rounded emotion. The physiological expression has increased, not caused, the

[1] *Journal de Psychologie*, 1904.

emotion. The boy sees the bear, becomes frightened, begins to run, and becomes more frightened. A dear loss is recognized, we feel grieved, and give way, and feel more grieved, until exhaustion ensues. The exciting idea and the accompanying bodily state account together for the complete emotion. To have the idea of the insult without the physical expression is to be only half-mad; to have the physical expression without the idea is to feign anger. And the sum of our inquiry is that the coarser emotions depend upon their exciting ideas and the accompanying physiological changes. Perhaps the practical educational service of this conclusion will justify us in having made the preceding theoretical inquiry.

The Control of the Coarser Emotions.

How then shall we control the coarser emotions in either ourselves or our pupils? Now the idea which is responsible in part for the emotion is subject to change, through the redirection of attention. Forget it, put it aside, think of something else, become otherwise engrossed, and the emotion tends to fade away. Cling to it, brood over it, hold it fast, exclude inhibiting or contradictory ideas, and the emotion tends to remain. Further, the bodily expression which is also responsible in part for the emotion, in so far as it makes use of the voluntary muscles of the body which is largely the real case, is subject to control. Give way to it, encourage it, assist it, anticipate it, and the emotion remains. Oppose it, check it, withhold it, struggle against it, prevent it, and the emotion tends to pass away. In short, to secure the presence

of one of the coarser emotions, were that desirable, encourage the ideas and acts that mean the emotion, as did Antony over great Caesar's murdered body; and to control them, which is the more frequently necessary, change the ideas and repress the expression, as panics are sometimes avoided by music. Our partial disagreement with the James-Lange theory permits us to reach the emotion through the side of the idea as well as the side of the act.

Start early or wait.

One particular thing is to be observed. An emotion just getting under way may be easily repressed, even in a crowd where suggestion is mighty. Once under headway, however, even in an individual, trying to repress it may be in vain, or even a stimulus. Try to repress the rising sense of the ridiculous, and it becomes all the more obstreperous within. Better out with it, and over with it, once it has its start. Similarly, let a passion, once aroused, first subside, whether anger, love, or hate, before attempting to handle it.

Think and act.

The whole of the direction of the coarser emotions from the intellectual side is included in the old Biblical proverb, "As a man thinketh in his heart, so is he;" and from the volitional side we cannot do better than quote him whose contribution to the question has done so much in recent years to clear up the whole field of feeling, Professor James, who writes: "Refuse to express a passion, and it dies. Count ten before venting your anger, and its occasion seems ridiculous. Whistling to keep up courage is no mere figure of speech. On the other hand, sit all day in a moping posture, sigh, and reply to everything with a dis-

mal voice, and your melancholy lingers. There is no more valuable precept in moral education than this, as all who have experience know; if we wish to conquer undesirable emotional tendencies in ourselves, we must assiduously, and in the first instance cold-bloodedly, go through the *outward movements* of those contrary dispositions which we prefer to cultivate. The reward of persistency will infallibly come, in the fading out of the sullenness or depression, and the advent of real cheerfulness and kindliness in their stead. Smooth the brow, brighten the eye, contract the dorsal rather than the ventral aspect of the frame, and speak in a major key, pass the genial compliments, and your heart must be frigid indeed if it do not gradually thaw!" [1]

Problems for Further Study

1. Origin of Expressions of Emotion.
2. The Function of Emotion.
3. A List of the Coarser Emotions.

References on the Coarser Emotions

Angell, Psychology, ch. XIX.
Bain, Education as a Science, pp. 72–81.
Calkins, Introduction to Psychology, pp. 285–298.
Dexter and Garlick, Psychology in the Schoolroom, ch. XVI.
James, Principles of Psychology, ch. XXV.
James, "The Gospel of Relaxation," in Talks to Teachers.
Stout, Manual of Psychology, pp. 289–297.
Thomas, L'Éducation des Sentiments, chs. VIII and IX.
Thorndike, Elements of Psychology, pp. 172–174.

[1] James, "Principles of Psychology," Vol. II, p. 463.

CHAPTER XIX

DEVELOPING THE ALTRUISTIC FEELINGS

In the description of the growth of feeling in chapter XV, it was shown that the first feelings are mainly egoistic, and later appear the altruistic feelings. It was there stated that the transition from one of these stages to the other would occupy us in a later chapter, and to this question we now come.

The Origin of Altruism.

The term *altruism* was given currency by the French positivist, Auguste Comte. To him all knowledge is limited to sensational experience, and consequently both the religious and the philosophical attitudes are to him relics of a past immaturity. Nothing ultimate is known or knowable. With the passing away of all unseen values on this basis, with the dethronement of God, Comte had to substitute something to which the affections of men might cling and for which they might labor. Altruism served this purpose in his system. It was to him a kind of religion of humanity, the worship of the best thing included in the sensible experience of man. In the absence of more ultimate values, man himself became the object of most worth. This somewhat pathetic origin, as I think, of the conception of altruism by no means blinds us to an element of truth that it contains. It is better to love one's fellow-man in the absence of God than not at all, — perhaps it is

still better to love him in the presence of God. The increasing tribe of Abou Ben Adhem makes the earth a more habitable place in which to dwell, even though there be a certain infinite loneliness everywhere. And it is this love of man, this real regard for the welfare of others, for which Comte and altruism stand.

The Problem of this Chapter.

It is a code of conduct much in advance of that unconscious selfishness which children in school so instinctively display. For the ordinary life of the child is self-centred. Nature has made him helpless and given him the means of making others solicitously aware of his helplessness. The home places the elders at the disposition of the youngest child. The earlier years mean that others give and he receives. It is no small thing for the child to enter school, a social institution where he is not the centre he was in the domestic order. The pupil with whom we begin is, by nature, and partly also by training, a little egoist. He is without doubt also a latent natural altruist.

But how different is the right life of the youth and man, regardful of the welfare of others, thinking of another's comfort rather than their own, preferring to give rather than receive pleasure, even sacrificing bodily comforts for friendship's sake, even indeed for a needy stranger's sake. The youth needs to have become altruistic, and he has not always done so.

Here, then, we reach the statement of our problem in developing the altruistic feelings. It is, namely, to effect wisely and surely the transition from the characteristic egoism of childhood to the altruism of youth and manhood, to supplement regard for self by regard

for others, to transform the self-centred life into the life with the divided centre. In a recent attractive and valuable discussion I find one of the results to be striven for in moral education stated in a fashion to illustrate the idea of altruism, "The gradual extension of sympathy (or of personality) over an ever widening area of life, so that the individual comes to feel the pain and the joy of all other lives as somewhat like his own." [1] To feel the universal human life and not neglect one's neighbors, to widen one's personality to cover sympathetically distant famines, persecutions, atrocities, disasters, and not forget one's poor relatives, to love humanity and help the uninteresting men one knows, — to bring naturally egoistic children into this good estate is our practical problem. Not that our youngest children are totally egoistic, I repeat, but dominantly so.

Are all Men self-centred ?

At this point it is pertinent to note that we as teachers through observation or study may have come under the influence of a chilling hedonistic philosophy, that all men are fundamentally selfish, that to avoid pain and get pleasure is the main motive of man, that sentiments of unselfishness and charity are signs of a weakening civilization as it becomes increasingly removed from a sturdy animal ancestry struggling for survival. We are particularly likely to meet the position that every man is working for himself without considering the welfare of his fellows in certain departments of our life, for example, just now in business. A recent editorial comment runs, "Business is not

[1] E. H. Griggs, "Moral Education," p. 43.

amenable to sentiment unless pressure is brought to bear upon it from the standpoint of effect upon revenues." [1] And "business is business" is an old saying recently dramatized, while not infrequently one hears statements meaning that personal standards of integrity are not applicable in the business world. This evidence all looks toward establishing the self-centred life of manhood on a conscious basis which in childhood we find on an unconscious basis. I refer to this doctrine of universal selfishness to combat it both as an ideal of life and as a fact. For, if it were desirable or true that all men are primarily for themselves, the problem of developing the altruistic feelings would be insoluble. The teacher must have his philosophy of manhood, and he must harbor no idea or ideal untrue to the nature and dignity of man.

For this reason let me attempt to disprove the apparently growing assumption that all men are self-centred, — not that any of my readers hold this position, but perchance that they may see more clearly why they never could hold it. Is it not, first, a bad interpretation of a devoted love, such, for example, as a cold and starving mother shows in giving her food and raiment to her children; such as a hero of the faith has in leaving behind country, friends, and relatives to carry good news to a less favored people; such as a brave fireman incurs in risking his life, sometimes giving it, for the life of another? To talk about the mother thereby avoiding the pangs of an outraged conscience, the missionary seeking thereby the pleasures of heaven,

A Poor Interpretation of a Devoted Love.

[1] *Boston Commercial*, June 10, 1905.

or the fireman working to become a Carnegie hero, as their essential motives, seems indeed paltry, and unworthy even what we know to be true of our weak selves.

Gratitude Meaningless

Again, the position in question makes gratitude meaningless. The emotion of gratitude naturally arises in noble natures whenever another renders an unpaid service, or puts the quality of the free spirit into a paid service. Words expressive of gratitude rise spontaneously to the lips. But the theory checks them there and logically prevents their utterance, for this deed after all was not done for me, the grateful one, but for himself, the doer. Every channel of gratitude between man and man is shut in consistency by such a view.

Poor Psychology.

And again, it is bad introspective psychology to report that men are always in their motives looking out first for number one. On this point let me quote the inimitable past master in psychology, Professor James, who writes: "So widespread and searching is this influence of pleasures and pains upon our movements that a premature philosophy has decided that these are our only spurs to action, and that wherever they seem to be absent, it is only because they are so far on among the 'remote' images that prompt the action that they are overlooked.

"This is a great mistake, however. Important as is the influence of pleasures and pains upon our movements, they are far from being our only stimuli. . . . However the actual impulsions may have arisen, they must now be described as they exist; and those persons

obey a curiously narrow teleological superstition who think themselves bound to interpret them in every instance as effects of the secret solicitancy of pleasure and repugnancy of pain. If the thought of pleasure can compel to action, surely other thoughts may." [1]

Poor Ethics.

And lastly, this theory is bad evolutionary ethics. This consideration touches the quick of the matter, for here the theory in its modern form originated. The animals survive through a struggle by might for existence; man carries on the same struggle in the field of conscious competition. Self-preservation in him too is nature's first law. Not to resist evil, to give the other cheek, to go the second mile, — these are the virtues of menials and slaves, not of the typical sons of nature, nor of the super-men that are to be. The weak, the infirm, the imbecile, the insane, the inmates of hospitals and asylums, these are the modern social incubus, they are not fit to survive, they ought not to be kept in existence. Thus Friedrich Nietzsche in Germany, thus Bernard Shaw in England.

Better Morals.

These men are lovers of power. They rebuke the Christian world for its lack of power. They are called into existence because the church is not the social power it might be. Their mistake is that they do not see the inherent power in the Christian message. Perhaps they see it more than they allow, and only wear the mask of hardness and egotism in a soft, weak age. So at least thinks James Huneker, who writes of Shaw in the "Iconoclasts," "Nearly all his earnings went to the needy; his was, and is, a practical socialism. He never

[1] James, "Briefer Psychology," pp. 445–446.

let his right hand know the extent of his charities, and mark this, no one else knew of it. Yet good deeds, like murder, will out. His associates ceased deriding his queer clothes, the flannel shirt and the absence of evening dress; his money was spent on others. So, too, his sawdust menu — his carrots, cabbages, and brown bread — it did not cost much, his eating, for his money was needed by poorer folk." So is a man better than his creed; so do his morals outrun his ethics.

Nature also Unselfish.

But the creed itself, does nature indeed justify it? Is she so productive of the selfish right of might? John Fiske, in his controversy with Huxley on this point, maintained that the moral is also a natural principle, and writes on "The Cosmic Roots of Love and Self-sacrifice." [1] The processes of generation, of birth, of maternal defence, of masculine protection, of rearing young, are all the instinctive giving of life for life among nature's animal children. And Prince Kropotkin well writes his "Mutual Aid" to show that evolution has not taken place solely by selfishness. A universe whose gifts to man are free for his appropriation and which out of its fertile womb has given life and consciousness to man cannot be justly described as being soulless and immoral at heart. And the highest souls of men, the prophets and our Martyr-Teacher, refuse to be gauged by the standard of self.

Conclusion against Universal Egotism.

And the sum of it is, as I think, we as teachers, in the work of upbuilding humanity in the image of God, as Pestalozzi expressed it, are not handicapped by any such blighting conception and are free to use what

[1] This essay in "Through Nature to God."

efforts are at our disposal to bring our pupils out of their dominant egoism into the clear place of social regard. And how shall we do it?

Utilize the Instinct of Sympathy.

Let me attempt to make certain definite suggestions toward the solution of this problem with which we began. Our nervous systems are so constituted that at the sight of suffering they instinctively respond in sympathy and fellow-feeling. Even an image of absent suffering, if vivid, may suffice to call out this instinctive sympathetic reaction. Utilize such instinctive expressions of feeling in some practical way; that is, do not let a feeling of sympathy once present in the school as a whole or in an individual evaporate without first having directed it into some practical outlet. What will they do to show their sympathy, is the question to put. A visit to the afflicted individual or home, a gift of flowers, reading with the sick or for the blind, assistance to the deficient pupil, or money for the deserving poor, serve to illustrate the practical expressions of a sympathetic feeling instinctively aroused. Not to put the feeling into action is to weaken its impulsive power when next felt; to concrete the feeling in action is to form a pathway of discharge for future similar deeds of service.

Get the Feeling through the Act.

It may be that the capital of feeling is absent and we have nothing but the bare situation with which to begin. But at least the pupils stand in need of mutual assistance and they are subject to our direction. Secure kind action toward others, even cold-bloodedly at first, if necessary, and the proper feeling will follow. The voluntary performance of an altruistic deed tends to

generate in its train the altruistic feeling. Do the deed, even with effort, that the feeling, if present, would prompt, and the feeling arises in the train of the deed. Aristotle somewhere observes that we love those whom we have benefited more than they love us; and Höffding shows that in the proscriptions of Sulla it was sometimes the case that the son betrayed the father, but the father the son never. Interest, affection, devotion, follow the deeds of service.

Reveal the Altruistic Nature.

An altruistic feeling needs an environment that stimulates and appreciates it. This environment we cannot always count upon in the home. Not infrequently cuffs and kicks and cruel blows are the daily portion of at least some of our pupils in their so-called homes. They have never been shown that consideration we desire them to show others; they are ignorant of kindness. For such we must supply in the school that environment stimulative of altruism which they lack in the home. Show forth kindness to these in word and look and deed, and their blunted and dwarfed natures receive the quickening of a revelation, and respond in gratitude and loyalty to you like flowers to the sun from out unpromising soil. Even the best of mortals are loving because some one first loved them. But a word of caution is necessary at this point. Kindness unappreciated can spoil its recipient. Therefore be just. To the law of kindness in the lips, where it becomes a stumbling-block of offence, let discernment add a firm justice.

Develop Imagination.

A great deal of the narrowness in the range of our sympathies comes from an undeveloped imagination.

The sufferings that occur under our eyes receive their instinctive response; but the far-off victims of famine, pestilence, fire, flood, and war reach only the outskirts of our intellects, like fictitious characters in a tale, rather than strike through to the deeps of our emotional life, and so give us the sense that they are real men and women, boys and girls, like ourselves. The trouble is with our imagination that cannot see round the earth, nor round a corner, nor into another life unlike our own comfortable existence. How this imagination that can picture to us both the needs and the values of a distant life is to be developed is a hard problem.[1] Perhaps less reading of the unreal sufferings of characters in fiction for whom we can do nothing and more contact with the real sufferings of characters in our community for whom we can do something would help. The visualizing of the far-away calamities, after the analogy of these known experiences, would serve to bring the remote near. And to take part in sending some relief to the children of misfortune will stimulate both the imagination and the feeling of fellowship.

Teach the Unity of the Race.

But there are certain ideas, as well as deeds and the imagination, which afford a nucleus for the growth of altruistic sentiments. One of these is the idea of the unity of the human race, the blood relationship of all mankind, the offspring of a common Father, brethren of a common life, and heirs of a common eternity. Teach and exemplify this lesson in the sense in which you believe it and yourself feel it. Men are born free;

[1] See Professor James's Essay, "On a Certain Blindness in Human Nature," in his "Talks to Teachers."

they are not born equal in capacity or in opportunity. The idea of human kinship suggests that the capable and the privileged share the burdens of the less capable and the less privileged as children of one family whose Head is no respecter of persons.

Speak for the Ideals of Living.

There are certain ideals too whose presence in consciousness stimulates regard for the common welfare, such as goodness, beauty, chivalry, and charity. Pupils, like other people, are responsive to ideals that have passed out of vagueness and generality into precision and concreteness. What is it to lead the good, the beautiful, the loving type of life? It is to recognize the present definite situation which permits one person to help another, it is to perform that single serviceable act in simplicity of mind, it is to feel in consequence that nothing has been done worthy of mention, that the servant is unprofitable to his master, and but delighting to do what is his duty to do. Speak for the ideals of living, let them enkindle the feelings of brotherly kindness, and annex them in some fashion to the next deed to be done.

Incorporate the Current Sympathies.

And, in developing the altruistic feelings, my last suggestion is, get for the school a share in the current sympathies that ever and anon are sweeping over our country. Like suggestion through a crowd, a wave of sympathy passes over our nation; its President is assassinated, its dwellers on the gulf are swept away with a flood, it goes to war as a knight for the relief of an oppressed people on a neighboring isle of the sea, it resents massacres due to race prejudice abroad, homes and lives are taken by earthquake and fire on its

western coast,— the heart of the nation is throbbing, and the school must feel it. Omitting the antipathies that divide men, nations, and races, the school must incorporate those pulsations of feeling which scorn space and race and make us one with our fellows the world over.

So may we pass from the egoism of boys and girls to the altruism of men and women!

Problems for Further Study

1. Evolutionary Ethics.
2. Auguste Comte.
3. Friedrich Nietzsche.
4. Bernard Shaw.

References on the Altruistic Feelings

Dexter and Garlick, Psychology in the Schoolroom, ch. XVII.
Griggs, Moral Education, ch. V.
James, Briefer Psychology, pp. 444–448.
Sully, The Teachers' Handbook of Psychology, pp. 461–468. 4th ed.
Thilly, "The Philosophy of Friedrich Nietzsche," *Popular Science Monthly*, December, 1905.
Thomas, L'Éducation des Sentiments, chs. XV–XIX.

CHAPTER XX

ÆSTHETIC EDUCATION

Its Nature.

WE now come to a consideration of the last and largest reach of the emotional life of man, viewed in its comparative distinctness from the other elements of his nature. The highest development of the life of feeling is in its relationship to the ideal of beauty. By æsthetic education is meant the cultivation of taste, the development of the sense of beauty inherent in all, resulting in the enjoyment, the critical appreciation, and sometimes the production, of works of art. Taste involves an intellectual discernment of artistic values as well as an emotional sensitiveness to artistic products. As Sully expresses it, "The æsthetic faculty or taste consists of the combination of the emotional susceptibility to the pleasurable effects of what is charming, noble, and so on, with the intellectual power of discriminating, comparing, and judging."[1] The primary purpose in æsthetic education is to bring pupils into the enjoyment of the great natural and human artistic products. Secondary to this is the purpose of enabling them to estimate artistic values. And secondary to both of these is the purpose of making them producers of art. As Ruskin has it, "It is surely a more important thing for young people and unprofessional students to know how

[1] Sully, "Outlines of Psychology," p. 540.

to appreciate the art of others than to gain much power in art themselves."[1] If we succeed as teachers in bringing pupils into the intelligent enjoyment of art, we may trust nature to make artists of such of them as she will.

Because of our present practical purpose, there are many attractive subjects at this point whose discussion we must forego, such as, the nature of the æsthetic emotion; its development in the race and the individual; the instincts with which it is particularly connected, such as the social and the playful; the nature and characteristics of beauty; and the relations of beauty and sublimity.[2] Passing by these fascinating inquiries as not bearing immediately on our endeavor to cultivate the taste of young people, though presupposing some of the results of such inquiries, let us notice both the neglect and the importance of æsthetic education in our day, and then see what the school should do to develop the æsthetic sense of its pupils.

The Neglect of Æsthetic Education.

Viewed in comparison with physical, intellectual, or moral education, it may with practical certainty be said that æsthetic education is suffering neglect in modern schools. This is evidenced by three considerations.

As a Part of Emotional Education.

First, as a part of the emotional life of pupils, æsthetic education in particular has suffered the fate of emotional education in general, that is, it has had no independent

[1] Quoted by Samson, "Elements of Art Criticism," p. 195.

[2] For these and similar matters, cf. Miss Puffer, "The Psychology of Beauty."

footing in the usual run of common modern educational opinion. Even Herbart, for example, gives the feelings no independent place beside intellect and will, nor do Schopenhauer, Fechner, and Paulsen. The emotions, including the æsthetic sense, have usually been catalogued with will.

Small Place in the Curriculum

Second, the place occupied by the art subjects in the curriculum is not at all comparable with the intellectual subjects, nor even with the moral subjects. The sciences are more prominent than art, I mean all the sciences taken together, — the linguistic as well as the physical and natural, and the historical and social subjects are equal, if not superior, in courses and hours to the art studies. Literature, drawing, and vocal music practically carry the burden of the educational values in art.

Omitted in Educational Discussion.

And third, expert and influential educational opinion has omitted to dignify the courses of art, too frequently still referred to as the "fads and frills" in education. In his "Philosophy of Education," for instance, Rosenkranz gives no significant attention to the ideal of beauty, no consideration comparable to that bestowed upon the ideals of health, truth, morality, and religion. Herbert Spencer, to take another instance, whose essays on education have been so influential for nearly fifty years, and have been ranked by W. H. Payne with the "Émile" of Rousseau and the "Republic" of Plato as the world's three classics on the subject, is openly neglectful of the æsthetic interests. Writing of the accomplishments, the fine arts, *belles-lettres*, etc., Spencer says "As they occupy the leisure part of life, so should they

occupy the leisure part of education." This spirit of Spencer, that puts the useless last, is dominating both our education and our lives. An age of utility that judges the fitness of things to survive by the biological standard of their use in the struggle for existence has found little place for the useless, even though it be beautiful.

Rousseau on Æsthetic Education.

It was not ever so in educational opinion as we go backward, nor can it long remain so, for æsthetic education is in importance second to none. The general aim of Émile's education is not very lofty, namely, to quote Davidson,[1] "to prepare him, not for a life of earnest, determined moral struggle and self-sacrifice, but for a life of quiet, cleanly, assured sensuous delight; not for a life of active enterprise, but for a life of passive dalliance." Yet, even with this low general aim, Rousseau placed a high estimate upon the value of æsthetic education, writing, "My principal object in teaching him to feel and love the beautiful in all its forms is to fix his affections and his tastes, to prevent his natural appetites from degenerating, and himself from one day seeking in his riches the means of happiness which he ought to find nearer home."[2] These words might well describe American society to-day, in which, as Edward Atkinson says, the ability to make money easily transcends the ability to spend it wisely.

Plato on Æsthetic Education.

Going back to Plato we find even a loftier aim of education than that proclaimed by Spencer in his

[1] Davidson, "Rousseau," p. 177.
[2] *Op. cit.*, p. 176.

famous statement, "To fit us for complete living is the function which education has to discharge," for to Plato this statement would have been acceptable, but to him "complete living" would have contemplated also the soul's unending destiny, and not simply, as with Spencer, its here and now phenomenal existence. The message of Greece to the modern world is beauty. Concerning those who are to be the educated leaders in the ideal state, Plato writes: "We would not have our guardians grow up amid images of moral deformity, as in some noxious pasture, and there browse and feed upon many a baneful herb and flower day by day, little by little, until they silently gather a festering mass of corruption in their own soul. Let our artists rather be those who are gifted to discern the true nature of beauty and grace: then will our youth dwell in a land of health, amid fair sights and sounds: and beauty, the effluence of fair works, will meet the sense like a breeze, and insensibly draw the soul even in childhood into harmony with the beauty of reason.

"There can be no nobler training than that, he replied." [1]

The Greek word to modern education is a beautiful mind in a beautiful body, which we, as a practical people, so much need in order to supplement the practical Roman's ideal which has proven so acceptable to us of a sound mind in a sound body.

The Importance of Æsthetic Education.

Having now seen the comparative neglect of æsthetic education in modern times, and reviewed the great

[1] "Republic," p. 401 D, Jowett Tr.

names of Spencer, Rousseau, and Plato on this pressing question, let us now see the real importance of cultivating their sense of beauty in our pupils. From four points of view this importance may be indicated, which we may name the recreative, the sociological, the psychological, and the ethical.

The Recreative Value of Æsthetic Education.

An æsthetic education introduces and keeps the play element in the intellectual life of man, thus affording him constant and needed recreation as he goes about the day's work. The æsthetic emotion is pleasure in the perception of the beautiful. The objects that usually excite it are fine buildings, good pieces of statuary, a picture, a poem, a musical composition, or some attractive scene of nature. Upon these the mind dwells in happy contemplation, not because of their utility, but because of their perfection. For their own sakes, not for their use to us, they are æsthetically enjoyed. Art does not send us seeking further for satisfaction, it provides satisfaction here and now for us. The pleasure taken in anything for its own sake is an æsthetic pleasure. Even the day's routine duties are capable of artistic performance. So to perform them makes work a satisfaction instead of drudgery. The soul with a love for æsthetic values is thus continually refreshed both through the elements of art in its environment, and through the quality of perfection which it introduces into its own work. The escape of the soul from its labor through some artistic piece led Schopenhauer to describe art as "a momentary liberation," and the finding of satisfaction in its labor makes service a delight. The same play instinct which in animals and

children leads them to do things, even fatiguing things, for the mere joy of doing them is responsible for that play of man's imagination which leads him into both the production and the enjoyment of art. Whatsoever preserves the play element in man's conscious busy life, as art does, increases the sum of human enjoyment, adds a clear gain to human existence, and is so an absolute human benefit.

The Sociological View of the Value of Art.

Second, from the sociological point of view, æsthetic education is essential in the adjustment of man to his complete racial environment. The race has bequeathed to us science and history and art. It is the business of education to secure the appropriation of these heritages by the new generation. To omit the element of art is so far forth to fail in an essential endeavor of education. A soul unawakened æsthetically cannot feel itself a part of all it meets; it may be at home in the realm of scientific fact and of historic deed, but not of human ideals. For our joy and inspiration these human ideals have been embodied in visible forms by the artist geniuses of the race.

The Educational value of Art, viewed psychologically.

Third, from the psychological point of view, æsthetic education is necessary for the complete development of the individual consciousness. This consciousness is as truly emotional in character as it is intellectual or volitional. And the sense of beauty is the finest differentiation of the life of feeling in man. The coldness of intellectuality and the narrowness of practicality are warmed and widened through the love of the beautiful. To an intellectual soul beauty says there are values that can be felt which cannot be described; to a practical

soul beauty says there are useless things which are also precious. The knowledge of the truth makes one discerning, but not tender; the volition of the good makes one correct, but not attractive; it is the love of beauty that unifies a life in one perfect whole.

The Ethical Value of Art.

And fourth, there is also an ethical value in æsthetic education, though to state it precisely is not easy, in consequence of which there is much confusion at this point. Vice seen in its true proportions is monstrous, hideous, ugly; goodness seen in its true proportions is attractive, winsome, beautiful. But vice often gilds itself and becomes deceptively attractive, and goodness often shows itself in Puritanic severity of outline, and becomes repellent. Now, in proportion as vice is seen to be ugly, the æsthetic soul eschews it; and in proportion as goodness is seen to be beautiful, the æsthetic soul chooses it. Thus in each case the deed is in conformity with the moral standard, its content is correct, but the motives have been in each case æsthetic rather than moral. The deed is moral in content and æsthetic in intent. Such a deed has not, of course, the ethical value of one done for righteousness' sake instead of for beauty's sake, but it does have all the ethical value that attaches to deeds in distinction from motives, and this is great, if, as Professor James phrases it, we are to know characters by their fruits instead of by their roots.

The Example of Herbart.

Herbart will serve us as an example from the list of educators who have recognized the ethical value of æsthetic education. His example is the more striking as he makes morality the end of education and would

make beauty the means to attain the end. He writes: "The one problem, the whole problem, of education may be comprised in a single concept, — morality. . . . Such a [an æsthetic] presentation of the universe, of all the world that is known, in order to efface, if need be, the evil impressions of unfavorable surroundings, may justly be termed the chief office of education. . . . Periods which no master has described and whose spirit no poet breathes are of little value to education." [1] Likewise George Eliot writes in "Romola," "It seems to me beauty is part of the finished language by which goodness speaks."

The Problem of Æsthetic Education.

These things concerning the importance of æsthetic education bring us to face with care the practical question of what our æsthetic problem is and how it is to be solved in our schools. Our problem is to cultivate the sense of beauty, to secure an æsthetic consciousness. The sense of beauty is cultivated when the eyes and ears and soul are open to the perfections of the work of man and nature; when a badly constructed building offends; when the eye rests with content upon a perfect statue or a splendid picture; when the ear enjoys a symphony, and the soul is thrilled with the meaningful messages of literature; when the hills give strength, and the sky exaltation; when the mountain lake gives peace and the ocean stirs a divine discontent within; when the rainbow gives promise, and the sunset, vision, and the

[1] Herbart, "A B C of Sense-Perception," pp. 92, 107, 113, Tr. Eckoff.

The classic discussion of the influence of the æsthetic sense on the moral sense is in Schiller's "Æsthetic Prose."

evening time, light; when the night brings no terror, and the storm a sublime awe; when all the visible and audible forms of nature quicken in man the sense that the perfect is here about us in the material world and only waiting to be enjoyed; when, in short, man's nature is offended at all ugliness and rejoices in all beauty. Such æsthetic experiences Wordsworth has described in the wonderful lines: —

> I have felt
> A presence that disturbs me with the joy
> Of elevated thoughts; a sense sublime
> Of something far more deeply interfused,
> Whose dwelling is the light of setting suns,
> And the round ocean, and the living air,
> And the blue sky, and in the mind of man;
> A motion and a spirit that impels
> All thinking things, all objects of all thought,
> And rolls through all things.

In such æsthetic experiences we are emotionally one with the beautiful object we enjoy. It is the highest type of experience known to man, with the single exception of the religious, in which the element of perfection in beauty is personified and with which man is then consciously united.

Utilize the Influence of Environment.

How shall this sense of beauty be cultivated in the schools? First of all, let us utilize the influence of environment. The great art educator is continuous, attentive association with the best works of beauty. The homes from which children come, back to which they go, help or hinder us æsthetically, and otherwise.

Through the influence of parents' meetings and the children themselves, the homes should increasingly become orderly and tasteful. An artistic school environment will include such elements as an architecturally attractive school building, beautiful and well-kept grounds, a school garden tended by pupils and directed by teachers, and interior decoration of pictures, statuary, attractive furnishings, with growing plants and flowers, together with an illustrated and readable magazine of art. Two characteristics at least the art of the schoolroom should possess: it should be artistic and interesting. Better a few good pieces of real art that fix right standards of beauty than many second-rate things. Interesting art to children deals with such themes as children, animals, action, movement, with groups and colors. Buildings, individuals, static scenes, and black and white things are for most pupils uninteresting themes.

Enlarge the Art Element in the Curriculum.

Second, we need to make a larger place for the art subjects in the curriculum. Literature is perhaps the only one of the arts that has to-day a fairly adequate place in the curriculum. Good representatives of each of the other arts ought to be there also. Vocal music, particularly the concert singing, needs to be improved, and, through the use of the mechanical devices for pianofortes so common to-day, pupils should become acquainted with the masterpieces of the great composers. Work in wood, clay, metal, etc., should continue to come into its deserved place, for æsthetic, as well as utilitarian, purposes. And the elements of form and color should be taught in drawing and art courses. Drawing is

itself another language whereby ideas are expressed and images portrayed. In his "Modern Painters," Ruskin writes, "I have no doubt that every child in a civilized country should be taught . . . to sing perfectly, so far as it has capacity, and to draw any definite form accurately to any scale." Professor Münsterberg is of the opinion that "the future battles against this country's greatest enemy, vulgarity, will be fought largely with the weapons which the drawing teachers supply to the masses." [1] And in an address on "The Appreciation of Beauty," President Eliot [2] recently said: "The best place to inculcate the love of the beautiful is the schoolroom. To the rising generation the most effective lessons can be given, and from the school millions of children will carry the lessons to millions of homes. After reading, spelling, writing, and ciphering with small numbers and in simple operations, drawing should be the most important common school subject."

Improve Methods of Teaching Art Subjects.

Third, we need to improve school methods where they touch art matters. The teaching of nature study needs to become not less scientific, but more sympathetic and appreciative. Reading lessons may with interest and profit be illustrated by the pupils. Young minds need to be feasted with the racial imaginings; the true literature for the child is not that written for him, but the simpler epics and mythologies of the race. Our curriculum has been classicized in its imaginative element, so that now we need, not so much more of Homer and of Virgil, as of the stories of the Old Testament

[1] Münsterberg, "Psychology and Life," p. 147.

[2] Eliot, "The Appreciation of Beauty," *Critic*, August, 1905.

and the Norse Eddas. The latter are particularly our birthright, and too long Saxon children have been deprived of consciously living through the imaginative experiences of their own primitive forbears. In the teaching of literature, perhaps not less of the linguistic, philological, and grammatical, but more appreciation of literary form and ideals, is our need. The museum and art gallery, where accessible, should be utilized by groups of children for observation and study, and school excursions may profitably be made to great natural or human works of art. And then there are the omnipresent natural scenic effects, of whatsoever character, if we but have the attentive interest with which to regard and utilize them in quickening the æsthetic sense. Schiller says, "Works of the imagination have the peculiarity of not permitting idle enjoyment, but of stirring into activity the minds of those who contemplate them." Exercise the æsthetic sense, then, through letting pupils contemplate works of art, and write down their simple, natural impressions. "The pupil should study and analyze a series of works from the great masters, describing in language in the form of essays the general theme and the methods adopted of making the work of art tell its own story, the technical difficulties and successful devices of the artist in completing his work of art." [1]

Cultivate an æsthetically stimulating school spirit.

Fourth, cultivate a school spirit that stimulates the æsthetic sense. Such a spirit will include at least the elements of freedom, leisure, and excellence. The sense of freedom in the school means that individuality

Freedom.

[1] *Proc. N. E. A.*, 1893, p. 473.

is not cramped, but is permitted to express itself in its natural chosen way. The boy who persists in drawing when he should be studying arithmetic may be made uncomfortable or he may be provided with crayon and paper. To do the one is to repress, to do the other is to stimulate, individual growth. Perhaps the greatest thing a teacher can do for a pupil is to discover that pupil's talent to himself.

Leisure.

The sense of leisure in the school means less restlessness of spirit and more opportunity in which to grow æsthetically. It means not so much doing less than we now do, though in some cases it means this too, but rather the sense of being unhurried. We must work, often rapidly, but the patience must be there in which alone we possess our souls. Nothing artistic is either produced or enjoyed under the sense of hurry. You cannot hustle beauty nor make culture hum. America is hurried to-day, the school is hurried, and hurry is inimical to artistic development; it is bent on business, not on enjoyment. We need to recover something of that cultured leisure which the Greeks represented by *theōria*, and for which Erasmus longed under the term *otium*. The shorter course always omits art, for it is rushing toward a practical conclusion, while art has repose in itself.

Excellence.

The sense of excellence is secured by insisting upon a certain perfection of quality in every piece of school work done. He who has done one thing perfectly for its own sake is an artist; he is kindred to all the artistic spirits of the generations. Many pupils have never felt the sense of excellence in their own work, they have

never been stimulated to do their best; but the pupil who is quietly permitted to do habitually less than his best is being unæsthetically trained. An artist has that passion for the perfect which leads him to complete even those portions of his work which human eyes will never see. And something of the artist must be in us before we can appreciate art.

Become Æsthetic Teachers.

And fifth, we must ourselves gradually become æsthetic teachers, æsthetic in the conduct of a recitation, æsthetic in the rounded achievement of the day, æsthetic in appearance and manner. Some of our time and some of our money must go into self-culture, into symphonies and poetry and pictures. About twenty per cent of the public school teachers of America drop out annually and others fill their places; in every five years practically the whole teaching force has changed its character; it is during the first three years only of their service that they buy books in mentionable quantity; this is the period of their ambition. And yet it is also true of teaching that where the vision fails the pupils perish. How inspirational is the teaching personality of Socrates, in whose prayer uttered under a plane tree by the banks of the Ilissus the American teacher needs to join, "Beloved Pan, and all ye other gods who haunt this place, give me beauty in the inward soul; and may the outward and inward man be at one. . . ."[1] Our knowledge of the subjects we teach and whatever imitable good our characters may possess are without the touch of grace until beauty be added, for, as Tennyson sings:—

[1] Plato, "Phædrus," 279.

Beauty, Good, and Knowledge are three Sisters
That dote upon each other, friends to man,
Living under the same roof,
And never can be sundered without tears.

Summary of Emotional Education.

Thus we have followed the course of emotional education from simplest beginning to grandest conclusion. We have seen the depth, and breadth, and height of feelings in life, that they are dependent forms of consciousness for all they go so deep; that they are to be reached through action and through ideas, that pleasure is the bright foreground and pain the dark background of school life, that the coarser emotions are to be controlled through the voluntary muscles and the redirection of attention, that the altruistic feelings are a natural part of a happy wholesome life, and that the sense of beauty is nature's best gift to the emotional life of man. If we see the feelings aright, intertwined with all the values held dear to man, we shall recognize that in them lies life's dynamic, and that to cleanse the heart, whence are the issues of life, is the high service emotional education is set to render.

Problems for Further Study

1. The Nature of the Æsthetic Emotion.
2. The Individual and Racial Development of the Æsthetic Sense.
3. Sex, Play, and Beauty.
4. The Characteristics of Beauty.
5. Beauty and Sublimity.

References on Æsthetic Education

Bain, Education as a Science, pp. 96–99.
Burrage and Bailey, School Sanitation and Decoration.

Dexter and Garlick, Psychology in the Schoolroom, chs. XVIII and XIX.
Johonnot, Principles and Practice of Teaching, ch. XII.
Morgan, Psychology for Teachers, pp. 145–149.
Puffer, The Psychology of Beauty.
Ribot, Psychology of the Emotions, ch. X.
Samson, Elements of Art Criticism, pp. 192–197.
Santayana, The Sense of Beauty.
Schiller, Æsthetic Letters.
Stanley, Evolutionary Psychology of Feeling, ch. XVII.
Thomas, L'Éducation des Sentiments, ch. XXIV.

PART IV

MORAL EDUCATION, OR EDUCATING THE MIND TO WILL

INTRODUCTION

The General Aim of Moral Education.

THE consciousness that constitutes the self of man can think; it also feels; it is also privileged to act. We are ready to begin the consideration of consciousness in its activity. The general aim of moral education is to secure right action on the part of consciousness. As truth is the object of thinking, and beauty of feeling, so goodness is the object of willing. The good will, that is our aim. The good will means that the inner activity of consciousness is smooth, easy, and efficient as well as that right deeds are done from right motives. Moral education must take account of the way in which consciousness does its work, as well as its incentives and its conduct. There is an intrinsic as well as an extrinsic goodness to be secured to consciousness by moral education.

Order of Discussion.

The roots of will are very much lower down in the nervous system of man than we ordinarily suppose. So it will be our first business to map out the field of will. Then, beginning as low down as education can reach, even with instincts, we have to consider various other tap-roots below the surface of choice, such as impulse, imitation, and suggestion. Then comes the familiar matter of habits, many of which are already fixed for us when the power of deliberation and rational choice finally arises. Then follows attention, the real

essence of will, the right education of which both attracts by its importance and repels by its difficulty. This then be our order of march, and let no man cry a halt until the will of the child is fully fashioned by all these means unto all good works.

CHAPTER XXI

THE FIELD OF WILL

In introducing the discussion of educating the mind to will, we must first see something of the general field of will. This bird's-eye view of the subject may be gotten by noticing in succession the function, the importance, the nature, and the development of will.

The Function of Will.

By the function of the will we mean the purpose that it serves, its utility to the organism. This function in the case of the will seems to be to provide the organism with a means of adjustment to its environment. The means is in most general terms the response of the organism to its stimuli. Through the senses the world acts on the organism, through the muscles the organism reacts on the world. The will is the reagent of consciousness. So far it is evident that without the function which will contributes, man would be an automatic machine, but not a person.

The Importance of Will.

The importance of the will in individual and social life follows from its function, and may be indicated in the following ways. In the individual, the will is the source of achievement and character; it keeps the intellect at work or lets it idle; it keeps passion and unseemly emotions in subjection or lets them overwhelm us; it realizes the capacity which nature through

heredity bestows, or wraps it in a napkin; it improves the opportunity which environment allows, or fatally neglects it; it stems the current of adverse circumstance, or drifts indifferently to an alien port. This in the individual.

In society the will is the responsible agent for custom, morals, law, constitutions, and history; in the form of what Schopenhauer called "the will to live," of what Darwin called "the struggle for existence," of what common usage calls "the instinct of self-preservation," or "nature's first law," the will keeps society in existence.

Everywhere — in the individual, in society, in nature, in reality as embracing all — that there is movement, philosophy would probably find signs of will, regarding all temporal changes as fulfilments of an Absolute Will. The parts seeking their adjustment to each other within the whole, this is the function and importance of will.

Two Conceptions of Will.

From this it is evident that the term *will* has a larger range than we often, perhaps commonly, think. Indeed, it is serviceable for us to distinguish two conceptions of will, the broad and the narrow. Narrowly, and perhaps commonly, will means deliberation issuing in conscious choice. It is action mediated by ideas. Its place in action is, comparatively speaking, small, but critical.

The broad conception of will includes the narrow as the highest stage in the development of will. The highest response of an organism to its stimuli is intelligent, *i.e.* it is a deliberate act. But to this the broad conception adds the biological and psychological

antecedents of conscious choice. To hold ourselves to psychological and scientific ground, excluding philosophical considerations, the broad conception of will is consciousness in action. To quote Professor Angell, "The whole mind active, this is will." [1] This broad sense of the term is urged upon us in view of the unity of consciousness, and the consequent inability to find in consciousness a distinct faculty of choosing independent of the other forms of conscious action. So our next matter, the development of will, will be treated from the point of view of the broad, as including the narrow, conception.

The Development of Will.

The question as to the development of the will contemplates the stages, not sharply distinguishable from each other, in the growth of human action from childhood to maturity. How may we enumerate the sources of human action, is our question. A complete answer to the question as to how the will develops would probably include a discussion of the following stages: —

(1) Spontaneous action, initiated in the young organism by the growth and nutrition of the nervous system; (2) reflex action, due to the sensitiveness of the nervous system to any stimulation external to itself; (3) instinctive action; (4) impulsive action; (5) imitative action; (6) suggested action; (7) habitual action; (8) chosen action.

In the discussions that follow of these successive stages in the genetic account of will, I omit from our

[1] Angell, "Psychology," p. 379.

treatment the first two types of action, viz. spontaneous and reflex action, since these are beyond the reach of the teacher's influence. This leaves us, then, as the outline of our following discussions and as representing the stages in the development of will the matters of instinct, impulse, imitation, suggestion, habit, and choice. It is important to observe that though we discuss the stages in this order as best representing perhaps the nature of will, nevertheless often in life other orders occur, for example choice before habit. In connection with the discussion of each stage of will, we must consider the corresponding educational training.[1] And as attention in its two forms, involuntary and voluntary, covers the whole range of will from instinct to choice, it must have a concluding place.

Problems for Further Study

1. How Will gets Control of Bodily Action.
2. Spontaneous Action.
3. Reflex Action.
4. Schopenhauer's Theory of Will.

References on the Field of Will

Angell, Psychology, ch. XX.
Bain, Emotions and the Will, pp. 297–314.
Baldwin, Feeling and Will, ch. XIII.
Baldwin, Methods and Processes, ch. XIII.
Fothergill, The Will Power, ch. I.
James, Briefer Psychology, ch. XXVI.
Knowlson, The Art of Thinking, ch. VIII.
Külpe, Outlines of Psychology, pp. 423–444.

[1] The chapters on Instinct, Impulse, Imitation, Suggestion, and Choice are somewhat enlarged from an article on "The Development and Training of the Will," in the *School Review*, October, 1905.

Ladd, Outlines of Descriptive Psychology, ch. XVII.
Schaeffer, Thinking and Learning to Think, ch. XIX.
Stout, Manual of Psychology, Book IV, ch. X.
Sully, The Human Mind, Vol. II, pp. 181–195.

The usual discussions of the education of the will are not so comminuted as in the succeeding chapters, so I will append here certain

General References on the Education of the Will

Adler, Moral Instruction of Children.
Bain, Emotions and the Will, chs. IX and X.
Bain, Education as a Science, ch. XII.
Barnett, Common Sense in Education and Teaching, chs. I and II.
Compayré, Psychology Applied to Education, ch. XIII.
De Garmo, Herbart, Part I, chs. IV and VII.
Dutton, School Management, ch. VII.
Fothergill, The Will Power, ch. III.
Fitch, Lectures on Teaching, ch. IV.
Harris, Psychologic Foundations of Education, ch. XXX.
James, Talks to Teachers, ch. XV.
Johonnot, Principles and Practice of Teaching, ch. XIII.
MacCunn, The Making of Character, Part IV.
Morgan, Psychology for Teachers, ch. X.
Spencer, Education, Essay III.
Sully, Teacher's Handbook of Psychology, chs. XIX and XX.

CHAPTER XXII

THE USE OF INSTINCTS IN EDUCATING

NOTHING characterizes the educational theory of the last fifteen years more than the demand that the instincts of children be studied, known, and utilized. The feeling is that somehow here are the bases of individuality, and unless we begin here, we are not beginning low enough down. Of course the modern initiative in the study of instincts has come from the biological sciences.

Earlier Educational Attitude toward Instincts.

The contrast between the earlier and later attitudes toward instincts is rather sharp, showing significantly the modern emphasis on the unity of the organic creation. Until recently it was thought that instinct belonged to the lower animal in distinction from reason in man. The consequent educational attitude was neglect of the instincts as educational material; or else they were to be rooted out as belonging to the lower natures; or else, indeed, they were to be taught to obey ideas as their governors.

Modern Attitude.

To-day, on the other hand, instincts are held to characterize man as truly as they do animals. Man probably has all the instincts that the animal has, and some of them, like constructiveness and imitation, more highly developed. They consequently constitute the alpha of the teacher's material. They cannot be

neglected, for they would run riot; they cannot be rooted out, for they lie too deep in the nervous system; they cannot be taught to obey ideas as their governors, for they are instincts, and unwitting of ideas. Taken together, they represent a chaos of conflicting forces and impulses. The wild life of the world is caged in the cerebro-spinal nervous system of the veriest child. The moral problem of elementary education, stated in simplest terms, is the organization of these multiform natural and inherited instincts and impulses.

The Nature of Instinct.

What is an instinctive act? We wonder at the bird and its nest, the beaver and its dam, the squirrel and its winter nuts, the wasp and its eggs, the bee and its comb, the ant and its organized society, and the child and its toys. All these illustrate instincts. The attempt to define an instinct would take some such form as this, a useful act without prevision of the end in view. Consciousness at first seems to be only a spectator; at most a subsidiary assistant, finding the material upon which the instinct works, but never the director at the beginning.

Physiologically, an instinct is a complex reflex, *i.e.* a series of reflexes following each other advantageously. It is an inherited nervous mechanism, a kind of transmitted ancestral habit.

Into the fascinating biological problem of the origin of instincts we cannot go, as beside our present practical purpose. The student finds here great names heading conflicting theories, Darwin for "natural selec-

tion," Wundt for "lapsed intelligence," and Baldwin for "organic selection."

The Principle in Educating the Instincts.

But our practical question is, how must the teacher deal with instincts in pupils? with these inherited accumulations of all the vast life of the past? Neither neglect, nor oppress, nor extirpate, nor instruct; but direct. Direct their expression toward legitimate objects.

Application of this Principle to Certain Instincts.

To apply this principle to some of the commoner and more representative instincts. Children are naturally constructive? Then provide courses in manual training and domestic science. Children are full of play? Then provide ample recesses and good games, and recognize play as a legitimate educator and not as a necessary waste of time. Children are acquisitive? Then provide shelves for natural history specimens, encourage collections of stamps, pictures, flowers, etc. Children obey the group or gang impulse? Then let home and school unite in organizing proper bands and clubs. Children have a curiosity surpassing that of any creature? Then answer patiently their question "Why?" as far as they are able to comprehend, and suggest further related questions to engage and develop their interest. Children have primitive fears? Arouse them, not by hobgoblin stories, but make the unavoidable consequences of wrong-doing such as justly to excite their fear. Children so easily fly into a passion? When the fury is past, show the boy some wrong inflicted upon the innocent, and let his anger kindle as a flame to right it. Children are secretive? Agree with

them to keep all evil reports about another. Children are so emulous of each other? Confront each one with his own weak past self to excel. They are envious of another's good fortune? Point to some man of good character as having the best treasure and secure hero-worship. And so on through the list. Study the instincts of children; catch them in the act, and direct them toward a legitimate object. To do so skilfully is actually to fashion the good will.

Problems for Further Study

1. The Origin of Instincts.
2. Sources of Variation in Instinctive Action.
3. A List of the Human Instincts.

References on Instinct

Angell, Psychology, chs. XV and XVI.
Baldwin, Story of the Mind, ch. III.
Baldwin, Social and Ethical Interpretation, pp. 185–195.
James, Briefer Psychology, ch. XXV.
Kirkpatrick, Fundamentals of Child Study, chs. IV, VI, VII, IX–XIII.
Lewes, Physical Basis of the Mind, pp. 463–475.
Morgan, Habit and Instinct, chs. II, VI, IX, X.
Morgan, Animal Life and Intelligence, ch. XI.
Oppenheim, Mental Growth and Control, ch. V.
Royce, Outlines of Psychology, pp. 274–285.
Spencer, Psychology, Part IV, ch. V.
Thorndike, Elements of Psychology, pp. 187–191.
Wundt, Human and Animal Psychology, pp. 388–406.
Ziehen, Introduction to the Study of Physiological Psychology, ch. XIII.

CHAPTER XXIII

TRAINING THE IMPULSES

The Nature of Impulsive Acts.

By an impulsive act we mean one performed at the mere thought of it, "on the spur of the moment," as we say. "I did it without thinking," the pupils sometimes say self-excusingly. There is a type of impulsive individual, with whom to think is to act. A certain degree of impulsiveness, or ideas leading immediately into action, characterizes child life. Bain's phrase is *ideo-motor action;* no considerable interval elapses between the mental state and the physical act. To think the word is to speak it, to see the attractive object is to get it, to hear a new sound is to seek its origin, to think of stepping over a certain block on the pavement is to do so, to wonder if the electric light is turned off is to go and see, to want water is to rise and get it, and so on.

Advance over Instinct.

The advance here over instinctive action is tremendous; there consciousness at most was a helpful spectator of hereditary responses to physical stimuli; here consciousness is the immediate cause of action. There the response is typical and racial and conservative; here it is novel, individual, and progressive. There action was uniform; here it is multiform. In impulsive action the basis is laid for addition to the ancestral capital. The individual comes into prominence.

Bad Impulses.

The great danger in impulsive action is that the wrong thing is thought of and done. This cannot be altogether avoided. The only thing to do is for teacher and pupil to recognize such deeds as wrong, to associate pain in some way with the wrong deed, and trust inhibition through this association to prevent a recurrence. Illustrations of such impulses will occur to you: the impulse to trip up a pupil passing by, to pull the ear of the boy in front, to whistle in school, to whisper to the neighbor, to step on the match on the floor; in general, to do thoughtlessly everything that pops into consciousness.

Good Impulses.

Also the right thing is sometimes done impulsively. The good thing to eat is shared, the little fellow is protected from his bullies, a fellow-pupil is helped in a difficulty, spontaneous confession of wrong-doing is made, admiration at another's success is expressed, and the like. The good thing impulsively done is to be noted by the teacher and commended. An association of pleasure with the good deed is to be formed, and this association trusted to repeat the deed.

The Educational Principle.

All conscious action passes through the impulsive stage, some action never gets beyond it. The general principle of training here is to foster the good impulses through desirable and pleasurable consequences, and to checkmate the bad impulses through undesirable and painful consequences, and be consistent throughout in so doing. In this early stage of impulsive action our dependence is almost solely on the pleasurable or painful fringes which experience associates with ideas of action. The idea of a wrong deed whose fringe

suggests pain will hardly lead to action; of a right deed whose fringe suggests pleasure will probably lead to action. The ideal is to eliminate the impulsive wrong deeds, and fix the impulsive rights deeds.

Description of the Precipitate Will.

The impulsiveness which all children possess to some degree some children possess to an abnormal degree. The impulsive child beyond the average, or beyond the period of mere impulsiveness, requires special description and treatment. He is quickly responsive to all external influences, physical or personal, acting unhesitatingly, and is easily led astray. The painful fringes experience has gathered about certain ideas are not effective in preventing action. Physiologically expressed, there is defective inhibition in the nervous system. He is sometimes described as being "quick on trigger," as "jumping at conclusions." His acts are wanton, without provocation. His nervous system sets quickly in the direction of motor discharge. The channels from cerebrum to muscles are fixed and deep. He is motor in type partly by inheritance, and partly perhaps also by training.

As he passes into the upper grammar grades and the high school, he lords it over his fellows, is showy in his action, is immodest beyond his years, resourceful in emergencies, and doesn't know the virtue of patience. He is motor because his mind is filled with what Baldwin calls "the twitchings, tensions, contractions, and expansions of the activities of the muscular system." He thinks of movements rather than sights and sounds.

His three characteristic mental traits are fluid

attention, distinctions difficult to make and to remember, and hasty generalizations.

If these tendencies are not corrected in the secondary school, and the youth comes to college, it is said of him that he has not learned how to study, how to apply himself, how to assimilate. He may be ready and willing and receptive, but is incapable of retaining, because his channels of reaction are worn smooth. He can mouth principles like an old man, but is dumfounded before facts. He is familiar with authority, but knows little of evidence; he can memorize and imitate, but cannot think and originate.

Its Training.

What shall be the training of the preternaturally impulsive child? To begin with, he does not need the kindergarten as at present conducted. Its emphasis on expression accentuates, rather than checks, his already defective inhibition. The present kindergarten is best for the sensory, quiet, unexpressive child.

Neither can the precipitate child be controlled directly by command, threats, or the rod. Command a restless child to sit still, and within, if not without, you make him tenfold more a child of restlessness than before; you fix his attention on the very thing he is to avoid. The negative and the positive of a picture still represent the same picture to the mind. So a negative command to the impulsive child holds before him the very picture he is commanded not to look upon. Ideas do have motor impulses.

The secret is rather to get the idea of a complicated act in his mind. This alone will delay his reactive machinery. If he marks his desk, get him to draw a

map, not as a punishment, but to direct his *penchant* into more difficult tasks, requiring hesitation and patience. If he cuts his initials on his seat, engage him in wood carving. Use his latent interests, but in novel and difficult situations requiring care and forethought. He should be kept with scholars slightly more advanced than himself. No assistance should be rendered him until the good fruits of discouragement are ripe. Assign him usually the secondary places in sports and games. In a case of real leadership, however, say an exploring party, give the place to him, where either responsibility may check, or failure teach. Analyze the mistakes made, showing their causes, and the advantages of forethought. Recognize also fully the motor pupil's merit,—quickness and promptness.

The studies of such a pupil that should be stressed are those furnishing no immediate opportunity for action, but requiring thought, like mathematics and grammar; those that cultivate careful observation and generalization, the making of accurate discriminations, and that demand attention, like experimental physics and chemistry. Descriptive botany, history, and geography should be held in abeyance to observational studies, unless indeed these be studied observationally. Arithmetic and geometry are better than algebra, empirical psychology or political economy than deductive logic. Drawing from life or models is good employment for the hands, also the use of neighboring machine shops. In general, this pupil needs the inductive studies, the pursuit of the general from the particular. How prevalent the tendency among pupils throughout

school and college careers to approach facts from the point of view of their likeness, merging them all together in a general description! Their training, above all, should be observation and report on single facts. These are the brakes on the wheels of their memory processes.

The precipitate will unassisted may pass into the pathological condition of uncontrollable impulses, the so-called monomanias, and insistent ideas.

Description of the Obstructed Will.

This, then, is the precipitate type of will and how we may deal with it. But some one will say, my problem is not with the active, but with the passive, child, not with the pupil having too much will, but too little, — the hesitant, backward, shrinking, timid child. His will seems to be obstructed, his inhibition is excessive, his ideas are deficient in impulsive character.

This type is indeed the other characteristic variation from the normal. We have the normal impulsive will, the abnormal precipitate will, and the abnormal obstructed will. If we call the child with the precipitate will the *motor* type, we may call the child with the obstructed will the *sensory* type.

How shall we describe the sensory type of child? He is passive, inert, contemplative, learning new movements slowly, and not quick at taking a hint. Often he gets the unearned reputation from uncomprehending teachers of being dull. He grieves in quiet, is undemonstrative, timid, and learns from a few experiences.

The sensory type is more difficult to assist than the

motor. This child is not the open book his brother is. He puzzles us, because he does not reveal himself in speech or action. What he has learned or missed is difficult to determine. His will may be obstructed because of too many ideas that mutually inhibit each other, — the Hamlet type; or deficient impulsiveness in the single idea that he has, — abulia. How many of us have not felt "the agony of starting," a temporary impotency before a paper to be written or a letter to be answered?

Its Training.

The great principle in dealing with the obstructed will is in some way to secure expression, to open the flood-gates of nervous energy, to connect mental states with physical reactions, to make action easy. The kindergarten is here indispensable. If it had been framed for the obstructed will, it could not have been better. It teaches the child ease of movement, self-activity, self-confidence, and familiarity with others.

The teacher must make no mistake with the sensory type, for mistakes here do not reveal themselves, but only increase the secretiveness you would remove. First wait for some positive indication of what the real situation is, — understand your child. Then cultivate appropriately self-expression, by letting him recite a great deal, repeat memorized verses; encouraging him to ask questions; giving him the active parts in games, the speaking parts in plays; try him as leader of a tramping party; provide in season an open-air life; especially be kind in correcting his mistakes. If left to himself, the sensory child with obstructed will is likely to develop

into idiosyncrasy and eccentricity; if brought out of himself, the variation may change to genius.

It is probably true that the motor type, whose extreme is precipitate action, predominates with girls, while the sensory type, whose extreme is obstructed action, characterizes boys; hence the common observation that girls seem brighter than boys. It means they are more alert, responsive, ready, quick; not that they have greater mental power, concentration, or constructiveness. In assigned tasks of memory they show better; in matters requiring patient and profound thinking, the boys are better.

Problems for Further Study

1. The Nature of Impulse.
2. Insistent Ideas.
3. Monomanias.
4. Abulia.

References on Impulses

Angell, Psychology, ch. XVII.
Baldwin, Story of the Mind, ch. VIII.
James, Briefer Psychology, pp. 435–442.
Search, An Ideal School, ch. VIII.
Stout, Manual of Psychology, pp. 266–268.
Thorndike, Elements of Psychology, pp. 85–87.
Thorndike, Educational Psychology, ch. XII.

CHAPTER XXIV

THE PLACE OF IMITATION IN EDUCATION

IMITATION is an instinct; suggestion is an impulse. The discussion of these two, therefore, in this and the following chapter, but carries forward in particular and notable ways the two preceding stages. Imitation and suggestion shade imperceptibly into each other, radical distinctions between them being impossible to maintain. Suggestion has the larger connotation, imitation being due to a particular kind of suggestive influence, viz. "suggestibility to models and copies of all sorts." [1] We take the term of smaller scope first.

The Nature of Imitation.

By imitation we mean the tendency to repeat the thought or action of another. Its influence is bound up with the social order and permeates all our conduct. MacCunn describes imitation as "one of the earliest, deepest, and most tenacious of human instincts." [2] And concerning its almost universal influence Professor Thorndike writes: "Among the most numerous and the most important causes of the ideas producing action in a human being are the acts of other human beings. Manners, accent, the usages of language, style in dress and appearance, — in a word, the minor phases of

[1] Baldwin, "Dictionary of Philosophy and Psychology," article, "Suggestion."

[2] MacCunn, "The Making of Character," p. 128.

human behavior, — are guided almost exclusively by them. They also control the morals, business habits, and political action of many men on many occasions. As the physical environment decides in large measure what things a man shall see and hear, so the social environment decides in large measure what he shall do and feel." [1]

Large and Limited Meanings.

Coming closer to the subject of imitation, we may distinguish a large and a limited sense of the term. In a large sense imitation is synonymous with learning, and accounts for all the content of civilization except that small but weighty fraction added by invention. In the limited sense of the term, it means the influence of personal example, and in this sense only is its discussion of practical educational moment, though such discussion with difficulty avoids platitudes.

The Models Children Imitate.

What models do children of younger or older growth imitate? We cannot answer that they imitate the good and not the bad. Rather their unreflective deeds are almost indifferent to this distinction. But the interesting deeds, the fascinating, the compelling; even the inherently uninteresting deeds of interesting people; the deeds of a supposed superior; and the deeds of the heroes of all times, — all these catch their attention, appeal to native interests, solicit action. The children imitate the captivating bad fellow, the playground leader, their parents, the teachers they like, and the characters in their favorite stories. They do not usually imitate familiar, commonplace, uninterest-

[1] Thorndike, "Elements of Psychology," p. 288.

ing deeds, the deeds of uninteresting people, the deeds of a supposed inferior, and the described virtues. All these latter fail to catch the attention, to reach the interest, or to enlist the imagination of children. Describe a virtue, like courage, and children get words; narrate a virtue, as in the story of David, and children get images and ideas. The striking personalities about the child, and the heroes of story, biography, and history, — these make the virtues imitable to children, these are the examples that influence.

The Influence of Example.

In what precisely consists the justly celebrated influence of example? The deed of another that has the quality of suggestiveness for us does four things, viz.

Stimulus.

(1) it stimulates us to do likewise. There is an impulse to perform an action which we see another perform. Actions speak louder than words because they are concrete, vivid, and sharp-cut, thus giving attention something upon which to fasten. Example is superior to precept, practising is better than preaching, because a deed is more suggestive than a word, — it inhibits any idea of the act's impossibility, often even of its undesirability.

Standard.

(2) Example provides us with a standard by which we pass judgments on conduct. Smoking must be all right for me, says the young fellow, for all the big boys smoke, and even such and such a man also. The superiority of an example to a principle as a standard of moral judgment consists in its clearness, its certainty, its unambiguity, whereas a principle always has

to be applied, thereby opening the door to casuistry. Of course a remote example faces the same difficulty.

Influence on Ideals.

(3) Examples raise or lower our ideals of living, they fill our minds with a certain pattern of life. Young minds are inevitably contaminated by a permanent evil social environment, as they are inevitably purified by constantly breathing a moral atmosphere.

Revelation.

(4) Examples reveal to us our own nature. Humanity is capable of that; I am a man. We shudder at crime, for it is not far from us; we thrill at self-sacrifice, for it too is within our reach. Not a school, perhaps, in which during the year some character does not flash forth to shame the face of evil and to make shine the face of goodness.

Application for Teachers.

Thinking of these influences of example in our social order, we may say, if examples teach us nothing through imitation, we are geniuses or defectives. For us as practical teachers these considerations demand that we be as genuinely interesting and fascinating personalities to pupils as we can be; that our deeds be worthy their imitation; that our sense of responsible living be sharpened, through recognizing our conduct as a contagion; and this last particularly, that through story, biography, fiction, and history, we store young minds with vivid images of heroic characters. To quote MacCunn again, "The best index expurgatorius is not to be found in a catalogue of books not to be read. Contrariwise, it is the carefully fostered love of good fiction that will in the long run do tenfold more to oust

the tales of scandal, frivolity, and crime than a thousand repressive 'Thou-shalt-nots.'" [1]

The Limitations of Example.

But personal examples alone are not adequate to the fashioning of will; they have their limitations as springs of action and guides of conduct. To emphasize these limitations of example in the making of character is perhaps the most pertinent point to-day in the discussion of imitation. We must be brought up almost entirely on example, but we can never become persons by proxy.

Aping.

Four limitations to the influence of example appear. (1) The influence of example is most valuable, not when it is literally and externally imitated, but when its spirit is caught and reproduced in the new setting. This adds to character independence, originality, genuineness, sincerity, personality. Otherwise, imitating is aping.

Particularity.

(2) Any example is particular in place and time; it is individual and concrete. The example therefore is not universal; it is not once for all, as such. The great demand that an example makes upon us is not that it be faithfully copied, but that it be understood, assimilated, appropriated.

Demands Imagination

(3) This leads us to note that the best utilization of example presupposes a developed imagination, permitting us to put ourselves in the place of the exemplar. Without this, we may do *what* he did, we cannot do *as* he did.

and Capacity.

And (4), in the words of Professor Stout, "Imitation

[1] MacCunn, *op. cit.*, p. 127.

may develop and improve a power which already exists, but it cannot create it." [1] We can become by imitation only what we already are by capacity. The example must presuppose the power in us to respond to it. It is no substitute for individuality. We may look to example for many beneficent influences, but it cannot save us from the duty and the danger of being ourselves.

Problems for Further Study

1. Unconscious and Conscious Imitation.
2. Influence of Imitation on Mental Development.
3. Imitation and Originality.
4. Imitation in Teaching English Composition and Art.
5. Tarde's Laws of Imitation.

References on Imitation

Baldwin, Social and Ethical Interpretations, ch. III.
Calkins, Introduction to Psychology, pp. 339–347.
Griggs, Moral Education, ch. XVIII.
Judd, Genetic Psychology for Teachers, pp. 125–127.
MacCunn, The Making of Character, ch. X.
Morgan, Habit and Instinct, ch. VIII.
Royce, Outlines of Psychology, pp. 274–285.
Stout, Manual of Psychology, Book III, ch. II.
Stratton, Experimental Psychology and Culture, ch. XI.
Sully, Teacher's Handbook of Psychology, pp. 517–520.
Thorndike, Human Nature Club, ch. XIV.

[1] Stout, "Manual of Psychology," p. 274.

CHAPTER XXV

EDUCATING BY SUGGESTION

THE one general principle for securing a conscious act is, arouse the mental state that means that act. Sometimes it is desirable to secure the act through arousing the mental state that means it without arousing any inhibiting mental state that would delay, or even prevent, the act in question. This method of securing action is by suggestion. The principle works both when we intend and when we do not intend specific actions. Teachers give suggestions unconsciously as well as consciously.

The Nature of Suggestion.

Suggestion is the tendency of consciousness to believe in and act on any given idea. Consciousness will both believe in and act on any given idea that is uninhibited by another idea, as is illustrated in both waking and hypnotic suggestion. By suggestion, customs, fashions, and fads pass through a school like wind-made waves over a grainfield. By suggestion the crowd follows the leader. By suggestion the physician renews the faith of his patient in his recovery, and the individual, timid and nervous before some trial, establishes his self-confidence through self-suggestions of a successful issue. By suggestion we arouse an idea in our pupil's mind, leading to the desired act, without arousing conflicting ideas.

The Place of Suggestion in Educating.

Individuals differ widely in suggestibility, some believing and acting on most they hear, others rejecting any foreign suggestion whatsoever. But of practically all children it is true that they are characteristically responsive to suggestions. Indeed, when we speak of the impressionable age, this means the suggestible age.

In a large sense of the word, suggestion is the comprehensive means of educating. In the words of Dr. Otto Stoll, "To educate a human being aright means, on the one hand, to let the suggestions influence him that are suited to his individuality in order to make him a spiritually sound, ethically good, happy being; and on the other hand to remove from him, or paralyze by contrary suggestions, all those suggestions that threaten his spiritual health, destroy his character, and kill his vitality, which he needs even more to-day when the struggle for existence is carried on with greater bitterness than in the times of easier modes of living." [1]

If several ideas leading to different acts are in consciousness, we have, not suggestion, but deliberation, with several motives present, and choice. Now the field in education for the conscious use of suggestion seems to be twofold, viz. (1) where the pupil could not rightly estimate the motives in deliberation, and (2) where it is important that he should do the right thing, but not important that he should be able to give a reason for so doing. It is evident that young children belong to both these types; they can neither weigh motives, nor is it important as yet that they should

[1] "Suggestion und Hypnotismus," second edition, Leipzig, 1904, pp. 708–709.

learn to do so. The limit to the use of the principle of suggestion is where the act should be reflected upon, the cost should be counted, before the deed is done. As Thorndike observes, "Suggestion as a method of control is risky in cases where training in judgment and choice is one chief benefit of the act." [1]

The Art of Suggesting.

Indirect.

The art of giving suggestions to children consists in observing two things, that they should be indirect and positive. The most effective suggestions are indirect. The really dangerous vice is that which by indirection and suggestiveness lets loose the imagination, while the open flaunting vice that appeals to the sensations is repulsive. Likewise the good that is but hinted or suggested is more attractive than that which is required. Direct commands are less obeyed, or, at least, less spontaneously obeyed; they subject the child's will. An indirect suggestion liberates the child's will, and the quality of exuberance characterizes his responsive action.

Positive.

The second thing to observe is that the most effective suggestions are positive; effective, that is, in getting the desired reaction in a desirable way. The positive suggestion secures the right act in the right way. A negative suggestion, that is, the suggestion not to do a certain thing, fills the child's mind with the idea of the very act he is told not to do, and so by suggestion tends to secure the undesired act. A foolish old story with several characteristic variations relates how a physician on a call warned his patient not to put beans up his

[1] "Elements of Psychology," New York, 1905, p. 287.

nose, only to find on his next visit that the patient had not heeded his negative suggestion. A positive suggestion excludes the possibility even of thinking of the forbidden thing. Suggestions of what to do, rather than what not to do, work best with young minds.

Danger of Negative Suggestions.

From the attractiveness of the forbidden fruit in Eden down to the events of any modern nursery, human nature reveals a curious bent toward what it is not permitted to have. Its assertiveness seems to appear just at the point of repression. Forbid one young person the company of another, and straightway that other becomes an essential to life's happiness. Now, this weakness in human nature is often preyed upon by teachers and parents when they get children to do what they want them to do by forbidding them those very things. The child that won't drink its milk is told he cannot have any more, and at once he calls for it; the child that doesn't want to go to school to-day is told he must stay at home, and at once he insists on going; and so on. Now while this insincere use of a negative suggestion is very effective in getting the deserved thing done, it is not done in the desirable way. Under such treatment a child becomes an habitual cross-patch, to whom everything permitted is distasteful, and everything forbidden is delightful. Negative suggestions to secure what is wanted from children in the way of conduct should never be used at all; negative suggestions to prevent what is not wanted should be followed always with a positive suggestion to secure what is wanted. Forbid the evil as little as possible; fill consciousness with the good as much as possible.

Stoll's Enumeration of Detrimental Suggestions.

In the work above cited, Dr. Stoll enumerates three kinds of detrimental suggestions children undergo in home and school alike, suggestions given often consciously on the part of parents and teachers, but without full consciousness of their disastrous consequences. In noting these suggestions it is to be remembered that they are probably more characteristic of the German schools which Dr. Stoll has primarily in mind than of our American schools, though we also feel their blighting presence.

Painful.

These are: (1) suggestions of a painful nature, physical and mental, such as the constant dread of physical punishment, rough mistreatment, mortifying exposure before school companions, shutting up children in dark rooms as a punishment, and suggestions of frightful supernatural beings. All these pervert the child's mental outlook on the world and take the soul of joy out of its life.

Contrary.

Stoll mentions (2) contrary suggestions, by which he means the use of a form or tone of speech not suited to the individual child's disposition, as habitual intimidation, or the inducing of paralyzing fear. Children so treated "are not able to obey a sharp and harshly uttered command to put on a friendly countenance, or to shake hands with a stranger, or to make a circumstantial confession, or even to beg the required pardon in penitent form." Then they get the reputation of being obdurate, and no scolding, nor low marks, nor bodily castigation, seem sufficient to break this "*maleficium taciturnitas*." The consequence of such ill-treatment is that in time these children become really

insolent, taking pride in suffering the severest penalty, rather than obeying such stern exactions.

"A single word of love or warm-hearted sympathy in the right way would have broken the spell, without which they are lost, for no property of young souls is more sensitive than the feeling of justice, and no need more intensive than that of love. When both are lacking, the soul becomes dry and hard. If they do not lose their power of psychical resistance, such children in later life join the crowded ranks of the dissatisfied, with whom mutiny against the established order has become instinctive. Natures of a weaker organization, however, become timid, solitary, melancholy, upon the bloom of whose young life the frost has fallen, who can never have genuine joy in anything again, for nothing can give them back their spirit."

Exciting.

And (3) Dr. Stoll mentions suggestions of over-excitement. Under this prejudicial influence fall especially lively, energetic, industrious, and conscientious children, and such as are tormented by a vain and overdriven ambition. Incitements to such overexertion are excessive praise before strangers, constant reference to the high grades of other children, and the pressure of examinations. The nervous tension of the school is too high, in consequence of which the health of both body and mind suffers.

So far the injurious suggestions as described by Dr. Stoll. It will encourage us as teachers in the delicate art of shaping conduct aright through suggestion to remember that the individual life-history of many a man, perhaps of some of us, is witness to the influence

of some apparently incidental suggestion dropped into the receptive youthful mind by a loving, serious, discerning teacher.

Hypnotism and Education.

In this connection I will briefly refer to the work of Dr. Quackenbos[1] of New York, who has been successful in treating, among others, deficient pupils by post-hypnotic suggestions. Those in whom habit has destroyed will-power seem to need the stimulus of another will for their self-recovery through right action. The cases that have shown themselves amenable to such treatment include alcoholism, social vice, cigarettes, drug habits, kleptomania, bad temper, cruelty, habitual falsehood, and loss of interest in study and books. The use of both waking and hypnotic suggestion by modern reputable physicians in dealing with sick patients dignifies this method as of possible service to the teacher in dealing with sick minds. It is a resource, however, to be used with greatest caution. A boy kept from weakness or crime through post-hypnotic suggestion may be formally correct in conduct, but the incentive is not a moral one; it is a psychic incentive of a non-moral quality. It is evident that such treatment is lasting only in case a moral motive is implanted to prevent relapses. The value of such treatment consists in its building up the nervous system enough to permit self-control in those cases where self-control is really desired. Only a deficient person is a fit subject for hypnotic treatment by suggestion. Neither ministers before their audiences in a revival nor teachers

[1] "Hypnotism in Mental and Moral Culture."

before their pupils can afford to use the art of suggestion for results. In the valid use of suggestion with normal persons in church and school the line is to be drawn exactly at that point where the individuality of the person is no longer his own, but has become another's.

Problems for Further Study

1. The Characteristics of a Crowd.
2. Permissible Uses of Hypnotism in Education.
3. The Psychology of Suggestion and Hypnotism.
4. An Analysis of a "Magnetic Personality."

References on Educating by Suggestion

Cooley, Human Nature and the Social Order, ch. II.
Dill, Psychology of Advertising, IV.
James, Principles of Psychology, ch. XXVII.
Mason, Hypnotism and Suggestion, ch. IV.
Oppenheim, Mental Growth and Control, ch. VIII.
Stoll, Suggestion und Hypnotismus, pp. 708–715.
Stout, Manual of Psychology, pp. 269–275.
Stratton, Experimental Psychology and Culture, ch. XI.

CHAPTER XXVI

FORMING HABITS

We are now on most familiar ground. Everybody knows about habits practically, and almost everybody nowadays knows also something about the modern physiological explanations of habits. President Faunce says Professor James's chapter on habit has been preached from a thousand pulpits. There is no scientific subject that will so preach itself as habit, and it needs to do so to every new generation afresh. The purpose of this chapter is to try to say again those things concerning habit which we doubtless already know, but of which, like the ten words of Moses, we cannot neglect to remind ourselves.

The Universality of Habit.

Where can habit be found? Thanks to modern scientific thought about the laws of nature, the answer is that habit can be found everywhere. The so-called

The Laws of Nature.

laws of nature are really her habits of behavior that have grown with her growth. What were the laws of falling bodies before there were any bodies yet condensed from the primitive nebulous mass? What were the laws of freezing mixtures when the universe of matter was molten liquid? Such questions suggest that the very laws of nature have themselves developed as nature has developed, and represent in the large man's formulation of nature's habits of action.

The Instincts of Animals.

Coming closer to man, and thinking of the actions of lower animals, it is usual to say that with them instincts rule. But the biological sciences of to-day are teaching us to think of instincts as really inherited ancestral habits. They wish us to remember, however, that the ancestral habits were not acquired in one generation, but probably represent the selection of fortunate variations through manifold generations. As they say, instinct is an inherited congenital, not acquired, habit.

In Man.

In the life of man the presence of habit is most conspicuous of all. According to an old meaning of the term, even his clothes are his habits, and by a figure of speech it still might be said that his habits are the garments of his soul. And then, too, he has his habits of mind, though he does not always recognize them. They are of two kinds, individual and professional. As an individual each man is characterized by his own personal outlook on life, differentiating him in feeling, thought, and temperament from all others of his kind. The habit of mind of the individual is particularly the category, whether static, dynamic, or organic, with which his customary thinking is done. The philosophical Dr. Davidson used to say in his educational writings that education is conscious world-building, which certainly means in part that man lives in his own consciousness somewhat as he does in his own dwelling, from which he looks out upon the passing show.

Habits of Mind.

And man also has professional habits of mind. They can already be observed in simple form settling

down upon the young man of about twenty-five who has just completed his course in law, medicine, theology, or the graduate school. Little tricks of the trade, mannerisms of the profession, marks of whatsoever cloth it may be, words of his school of thinkers, sentiments from his bias in life, are already beginning to show that the professional habit of mind is making him its own. With the older ones, of course, it is simply the same story written in larger characters.

Habits of Action.

It hardly needs to be said that the real place in a man's life where we touch the force of habit is in his deeds. Here the word *habit* has most of its associations, here we find habit as a form of will, a crystallized form, and here we must now particularly observe its nature.

The Nature of Habit.

The tendency to repeat, this is omnipresent in nature and man. It is the tendency to repeat that gives laws to nature, instincts to animals, and habits of mind and action to man. It is a tendency as truly characteristic of the inanimate as animate world, if we may make a distinction odious to the hylozoists of all ages. A piece of paper once folded folds more easily in the same place the second time; a gate once swung upon its rusty hinges swings more easily the second time; the key once turned in its unused lock turns more easily the next time; the tailor in vain removes the old wrinkles from the coat-sleeve; the shoes once worn begin to show their creases, — all this is as true as that the deeds of life seam and scar the faces of youth, and write out there in bold outlines

during the years that character which the artist so loves to spread upon his canvas. Thus, to begin with, we may say that the nature of habit is the tendency to repeat.

Proverbs.

So universal a tendency and so potent a force in shaping human action has not escaped the wisdom of the race as expressed in its proverbs. Despise not a proverb. Though usually both one-sided and exaggerated, it enwraps a truth, a portion of the truth, a little epitome of racial experience. Every child must be nourished afresh on the old maxims: "Habit is second nature;" "As the twig is bent the tree is inclined;" "The child is father of the man;" "Man is a bundle of habits;" "As the tree falls so shall it lie;" and all the rest of the gnomic list gathered about the theme of habit.

The Explanation of Habit.

Why can a habit be formed? Why is there a tendency to repeat? This is the technical question as to the explanation of habit, and following the lead of psychology, all whose explanations are physiological, we must find our answer in the character of the nervous system in man. An illustration will help us here. Familiar things like newly laid concrete or the putty freshly smoothed against the window pane are pliable enough to receive impressions, even one's own initials, and hard enough to keep them. Water would receive but not keep them, marble would keep but with difficulty receive them. Now the nervous system of a man, to compare a delicate and complex thing with a coarse and simple thing, is like the concrete or the putty in one respect; it has plasticity, as the physi-

Plasticity.

ologists say. As Mr. Frank Cramer has expressed it, "The brain and spinal cord are plastic enough to receive impressions and rigid enough to retain them." [1]

Brain Paths.

Now the hypothesis that would explain habit physiologically is that every deed once done leaves its least unimaginable trace or path in the plastic nervous substance where the nervous energy ran through to the muscle whose contraction caused the action. This path once traced, like a mark in the putty or a new wagon road through a tangle of woods, is more easily followed the second time; the brain path is more pervious to later discharges of nervous energy; lines of least resistance are established; and the nervous system is equipped with its habitual motor responses to life's stimuli. The whole nervous system of a man is like the drainage system on the surface of the soil, — the new showers are carried off by the old channels; so the new stimuli are drafted off through the old paths in the brain and spinal cord. It is both a coarse and a hypothetical way of expressing it, but the physiological idea is that our habits are brain-ruts. We should probably approach more nearly the literal truth by saying that habits are the more pervious pathways in the nervous system of the motor discharges. As Dr. Carpenter has expressed it, "Our nervous system grows to the modes in which it has been exercised;" or, in the language of Professor James, "An acquired habit from the physiological point of view is nothing but a new pathway of discharge formed in the brain, by which certain incoming currents tend ever after to

[1] Cramer, "Talks to Students on the Art of Study," p. 9.

escape." [1] Thus, in brief, plasticity of the nervous system and brain paths increasingly easy to follow tell the story of the explanation of habit.

It ought to be remarked, by way of parenthesis at this point, in order to prevent too gross conceptions of the effects of habits upon the nervous system, that no anatomy of the brain is sufficiently advanced to trace one of these brain paths, that we do not know surely yet whether a nerve current is electrical in character, and that consequently the whole physiological explanation given above is strictly speculative and not scientific in character. But as Plato was accustomed to observe when uncertain about any point, "something of the kind must be true."

Effects of Nutrition and Age.

There are two influences brought to bear upon these changed conditions in the nervous system due to use whose effects it is important to consider. These are nutrition and age. Every one knows how the growth of a tree preserves any wound to its trunk, and how the growth of the human body preserves the scar of any considerable injury. These rough illustrations may help us to grasp the notion that the nutrition to nerve cells supplied by the coursing blood keeps the nerve tissue in its changed state. And just as the lapse of days hardens putty and concrete, so the lapse of years gradually reduces the plasticity of the nervous system, until finally the whole is practically set like some plaster cast of a man. In a real and literal sense the plastic youth is thus fashioning in his nervous system by the daily deeds the pattern of his own manhood.

[1] James, "Briefer Psychology," p. 134.

By the age of thirty the most of us are the servants of our past selves. We may make new resolutions, but we cannot give ourselves new nervous systems. Here indeed is the picture true that Omar has painted with Oriental imagery.

> "The Moving Finger writes; and, having writ,
> Moves on: nor all your Piety nor Wit
> Shall lure it back to cancel half a Line,
> Nor all your Tears wash out a Word of it."

Only the moving finger is not fate, but will.

Second Definition of Habit.

To complete our explanation of habit in terms of plasticity, brain paths, and the effects of nutrition and time, we may say that habit is the memory of the brain and spinal cord, and these never forget. The physiologists tell us that perhaps the nerve cells in brain and spinal cord number three thousand million. Their combinations are more than ample to register every single thought, feeling, and deed of many more years than are allotted to the life of any man. And thus, as a second definition of habit, we may say, it is the change of nerve structure with use.

The Sinister Side of Habit.

The nature and explanation of habit have afforded us opportunity to see that there is both a dark and a bright side to the tendency in the nervous system to repeat. The sinister side of habit appears, first, in

The Susceptibility of the Nervous System to Bad Habits.

the consideration that, though good habits are more easily formed as better suited to the natural uses of the nervous system, still bad habits can be formed. At first the whole system of a man will mightily rebel at

any excess or injurious shock to its equilibrium, such as it never shows at the beginning of a good and natural habit, but in the end the injurious habit is itself incorporated in the nervous system like a stone or a barbed wire about which a tree has grown, until finally, more's the pity, the cessation of the habit, even if possible, would be as injurious as its continuance.

Our Worst Enemies.

Second, while good habits are our best friends, never deserting us in the time of need, bad habits are our worst enemies, sapping our vitality in times both of strength and weakness. When our nervous system is weakest, then are we least able to inhibit the action of the brain paths utilized by the destructive thing. The bad habit is merciless; it not only throws us, but, once we are down, jumps on us and holds us there.

Diminishing Possibilities.

Third, the sinister side of habit appears in the fact that every day diminishes our possibilities; we are young and plastic but once; the life cannot be gone over again. This is well for us if the first deeds are right deeds, but endlessly discomforting if the first deeds are wrong deeds. Thrice miserable is the man who awakes to find he has hit the wrong trail in life and yet cannot back track. In the journey of life we leave untrodden paths behind us every choice we make. The only safe direction is to do the first time only those things one is willing to continue.

Indifference.

Fourth, habit tends to make feeling indifferent. The enterprise launched with such high hopes, buoyant enthusiasm, and waving of flags, comes to a dead calm often in the ocean of monotony. The countryman

does not notice the clouds, the mountains, and the sunsets about his ancestral home so elevating to his city visitor, and the city man does not notice the rush and roar all about him so confusing to the countryman. In the one case habit has graded pleasure down to indifference, and in the other case it has graded discomfort up to indifference. The good habits whose effortful formation gave us some high sense of self-mastery are now for us a matter of course, and the bad habits whose chosen beginnings so terrified our conscience and humbled our self-respect are now for us also the same matter of course. As with the prisoner of Chillon, the shades of our dungeon may make us indifferent to the light of the sun. Habit is the enemy of strong feeling. To quicken in us the pulse again, to brighten the eye, to crimson the cheek, the old must periodically give place to the new.

How to make or break Habits.

The practical question next arises as to how habits may be forged or broken. It is already evident that it is easier to get them than to get rid of them, for in getting them the nervous system is virgin soil, while in getting rid of them the nervous system is like the underground of a big city. The consequence is that we usually keep the habits we get. The formation of right habits is vastly better than the reformation of bad habits. The answer to our practical question consists in observing five familiar maxims.

Action.

First, act on every opportunity. The set to the nervous system is given by deeds, not words. Better a single right act than a dozen resolutions to act rightly;

in breaking a habit better a single refusal now than a dozen intentions to refuse next time.

A Strong Start.

Second, make a strong start. Well begun is here indeed half done. The vigorous initiative is like the first deep furrow through fallow land, — it may introduce a new system of drainage. To set forth without a stout heart is to invite failure.

No Exception.

Third, allow no exception. Consider each time that the whole issue is at stake. The exception is the storm that carries away from the foundation the inhibiting dam across the undesired brain path. The whole structure must be founded anew, with less likelihood of success than before.

Substitute the Good.

Fourth, for the bad habit, substitute something good. To keep the mind on the good is easier than to keep it off the bad. The positive occupation, not the negative prohibition, must engross attention. Withdraw the mind from the ills we have by centring it on the goods we want.

Effort.

And fifth, summoning all the man within, use effort of will. By these momentous words nothing more mysterious is meant here than listening attentively to the low whispers of duty in the midst of the storm in the soul, looking intently upon the shining face of goodness when wanton figures play among the shadows of the imagination, and laying hold upon some solid righteous thing when the soul grows faint and dizzy in the world's wild whirl.

The Importance of Habit.

Something of the sense of the importance of habit must have come upon us already as we have rehearsed together these familiar things about the patterns we

are weaving into the web of life. A simple enumeration of what habit does for us will suffice to magnify its importance in our estimation. Without illustration it will be obvious how habit makes action accurate and speedy through the acquisition of skill and the simplification of movement; how it consequently diminishes fatigue and permits vaster accomplishments; how it mechanizes the essentials of survival, like walking, eating, dressing, talking, sleeping, working, and the rest, leaving the mind thus free for the solution of problems and the undertaking of the new tasks set for civilization; how it introduces the element of reliability into personal and social action, thus permitting coöperation in the world's work to continue, and incidentally the unscrupulous to fatten on the honest; and, finally, and most personally of all, how it fixes into firmness the character of a man and presents it to eternity. Unless the law of continuity fails, what a man shall be is the fulfilment of what he is now becoming. Destiny is the harvest of character; character is the summation of habit; habit is the repetition of deed; deed is the expression of thought; and thought is the spring of life. The far-off issue of life is out of the thoughts of the heart; keep then thy heart with all diligence.

Educational Conclusions. Education as Habit.

And what are the educational conclusions of the whole matter? First, as teachers we must think of the whole of education as a process of habit formation. From this point of view education should aim to equip the nervous system of the young with habits

of suitable reaction on life's stimuli. As Bacon with characteristic pithiness has expressed it: "Many examples may be put of the force of custom, both upon mind and body; therefore, since custom is the principal magistrate of man's life, let men by all means endeavor to obtain good customs. Certainly, custom is most perfect when it beginneth in young years; this we call education, which is, in effect, but an early custom." [1]

The Greatness of Education.

Second, the greatness of education consists in the fact that it captures the plastic nervous system of the youth of the world. Nerve plasticity and the school age are practically identical: it is the former, of course, that determines the latter. No institution, like business, that touches man's life in its maturity can begin to compare in opportunity with education. In the final round-up of human character a single year in the teens contributes more than the whole decade of the forties. To be a year late entering business where all years are alike means nothing; to be a year early in leaving school where all years are unique means absolute loss. To make a life is more than to make a living.

Inspiration and Warning.

Third, the nervous system of children appears almost equally susceptible to good and bad habits. A nervous system is born into the world neither upright nor depraved, but plastic; it has no habits; its drainage system, other than for instinctive acts, is unformed; unfortunately, it may be weakened through parental excesses or deprivations, but even here nature shows

[1] Francis Bacon, "Essay on Custom and Education."

herself a kind mother to the offspring and is surprisingly protective; fortunately, too, acquired parental bad habits are probably not transmissible. This situation to the teacher is both an inspiration and a warning: an inspiration, in that this child comes almost brand-new from the fruitful womb of nature and is all ours for the time; a warning, lest in any way unwittingly from us his little system is fashioned awry or not directed aright. But when our knowledge is outdone and our tongues cease, then it is, let us remember, that love never faileth.

First Action, then Thought.

Fourth, under adolescence, strive primarily for habits of right action; during and after adolescence, for habits of right thinking. The reason is evident: with the younger, the act is the thing; instincts and impulses, imitations and suggestions, these are fashioning the child into habits of action long before it is thinking out rational plans of living for itself. But with the adolescent all the wealth of his emotional and volitional life is coming under the sway of his rationality, and here it is all important that the habits of right thinking be formed to insure against change the habits of right acting, and to secure a sane and wholesome outlook on life. Of course it should go without saying that children are also beginning to think and that adolescents are continuing to act. The point is that with children acts, and with adolescents thoughts, count most.

Instruction.

Fifth, hence it is that in early adolescence pupils should carefully be taught the nature and importance of habit. It is at this time that life habits are being

chosen, either old ones reaffirmed or new ones selected. At this age pupils can deliberate, and a little instruction as to what a habit really is and means will always, *crede experto*, be valued and utilized. There is no scientific subject, not even the effects of alcohol upon the system, that will so carry its own message as habit. Give it a chance. I wish I knew how to say strongly that boys and girls reaching adolescence should be taken into the utmost confidence of fathers and mothers, principals and teachers, concerning those personal habits that make or mar the beauty and joy of human living.

Problems for Further Study

1. Inheritance of Habits.
2. Generalized Habits.
3. Explanation of Plasticity.
4. Indirect Education of the Will.

References on Habit

Angell, Psychology, pp. 52–63.
Baker, Education and Life, pp. 92–95.
Calderwood, On Teaching, ch. IV.
Griggs, Moral Education, ch. XIV.
James, Principles of Psychology, Vol. I, ch. IV.
MacCunn, The Making of Character, Part I, ch. VI.
Morgan, Habit and Instinct, ch. VII.
Oppenheim, Mental Growth and Control, ch. VII.
Royce, Outlines of Psychology, pp. 197–208.
Thorndike, Educational Psychology, ch. V.
Thorndike, Elements of Psychology, pp. 199–229.

CHAPTER XXVII

DELIBERATING AND CHOOSING

Advance over Preceding Stages.

At this point consciousness takes possession of action. Hitherto consciousness has been the spectator or the assistant in action originated largely without itself. It now becomes the judge and the executor of action. Here fully the will is consciousness in action.

Appearance of Individuality.

In this new stage in the development of will the sense of individuality is regnant. No longer simply a follower, one is now also an originator. The power of initiative is developed. The dignity of being a person is felt. All the earlier influences of instinct, impulse, imitation, suggestion, and habit are present in full force, but brought into ordered subjection to the self. Negatively, the new period means self-control; positively, it means self-expression.

Importance of Choice.

In actual extent the part played by deliberation and choice is comparatively slight, but momentous. A choice may reaffirm a bad habit that shall reduce future life to servitude, or it may support a good impulse that will liberate the divine powers resident in manhood. What an adolescent is may be credited mostly to his heredity and environment; what he becomes must also be credited to himself. This period means the enthronement of reason, either to rule or misrule.

Definitions of Deliberation and Choice.

By deliberation we mean the estimating of impulses to action, or motives, and their consequences; and by choice we mean the mind's affirmation of one of these motives, thereby inhibiting the others. A deliberate act is thus one performed after reflection. Our first deliberate acts are probably attempts to correct wrong impulsive acts. The essential function of a deliberate act is to prevent hasty, and so possibly wrong, reactions to stimuli, and to secure right reactions; in short, to secure most beneficial reactions on stimuli. The highest type of responsive action is intelligent.

What a Deliberate Act Implies.

The possibility of a deliberate act thus presupposes several things, viz. (1) time to think, a period of hesitancy and uncertainty; (2) several apparently open possibilities of action, held before consciousness as ideas; (3) as these ideas are all more or less attractive to consciousness, there are conflicting motives or desires, a motive or desire being just the attractiveness of an idea for consciousness; (4) there may also be present an ultimate motive or standard, by which the others are to be estimated, *e.g.* the desire to do right, the intention to succeed regardless of means, etc.; and (5) choice, or the selection of one of the ideas to follow. In short, a deliberate act is the resolution of conflicting desires.

Individual Variations in Choosing.

As everywhere in mentality, and nowhere more noticeably than in deliberation, individual differences appear. Professor James enumerates "five chief types of decision," as follows, (1) the reasonable type, which adopts without effort or constraint the alternative favored by the balance of arguments; (2) the drifting

type, which follows a course accidentally determined from without; (3) the reckless type, which follows a course accidentally determined from within; (4) the converting type, whereby "we suddenly pass from the easy and careless to the sober and strenuous mood;" and (5) the effort type, in which with a feeling of effort we choose the hard right thing rather than the easy wrong thing. Any individual may at different times illustrate each type; he also probably tends to conform generally to one of the types.

The Teacher's Assistance.

It is evident that the nature of deliberation and the types of choices determine the kind of assistance which the educator may render pupils who have reached this stage of development. In general, but two things are necessary here, which, however, are very comprehensive, viz. the knowledge of the right, and the disposition to do it. To consider each of these separately.

The Knowledge of the Right.

First, the knowledge of the right. When pupils are beginning to think for themselves, the time has come for direct ethical instruction. The fully fashioned will must be instructed; an uninstructed will, however faultless its conformity to right standards, does not possess itself. To do right through choice presupposes a knowledge of the right. Pupils who are deliberating, and so can use knowledge in the direction of conduct, must be taught what the virtues and duties are. This should be done incidentally by all teachers in all fitting connections, and also specifically in connection with an elective high school course in Ethics. To fit teachers for their work of incidental as well as specific ethical in-

struction, the training of teachers should include a careful study of ethics and practical sociology. Such training would enable teachers to indicate to pupils the ethical bearings of all class-room questions on practical living. We require teachers to be of good moral character, but we do not require that they should know the elements of morality.

The Minimum of Ethical Instruction.

The ethical instruction in the schools, in order rightly to mediate conduct with ideas, must include, as a minimum, teaching (1) the duty of deliberation. "To think is the moral act," says Professor James. It holds the equilibrium of ideas until the die be cast aright. (2) The instillation of a moral ideal, for example, the Golden Rule, as a standard by which to judge motives, to follow this ideal being the ultimate motive of all choices and living. (3) Teaching the consequences of good and bad choices upon self and others ere they are made. Put the moral experience of the race at the disposition of the young deliberator. In short, after deliberation arises, the first essential in the training of the will is the training in right ideas.

Is it enough to know the Right?

Socrates, indeed, thought that this was enough, that knowledge is virtue, that virtue could be taught, that if a man knew what was right and that it was good for him, with pleasurable consequences, he would do it, for every man is seeking what is good, that is, pleasurable, for him. Plato also thought that it was enough, that all vice is involuntary, and due to the lie of ignorance in the soul. This is the hedonism and the intellectualism of Greece before Aristotle, who saw and said that the famous dictum of Socrates confused the means

with the end and identified a part of virtue with the whole. But with Socrates and Plato we must agree in part, viz. without knowledge, no virtue, though there may be innocence. We may go one step further and say, in accord with Bain's principle of ideo-motor action, to know the right is to be tempted to do it, and to think of nothing but the right is indeed to do it.

But what Socrates and Plato fail to observe, the voluntarism of Aristotle and of Christian thinking recognizes. It is possible to see and approve the better and follow the worse. Human nature is weak and does not always respond to the ideas of the right; it is thoughtless, and fails to remember the right; it is inattentive, and lets the right slip out of consciousness; it is prone to evil, and lets pleasures of wrong-doing fill the focus of consciousness; so that virtue is not alone knowledge of the right, — it is knowledge plus performance. In addition to training in right ideas, we need, therefore, —

The Disposition to do the Right.

Second, the disposition to follow them. How shall teachers cultivate in pupils the disposition to do as well as they know? Here our task is indeed difficult. Morals cannot be taught, though ethics can; the disposition to do right cannot be taught, though it can be cultivated; character is not a gift from teacher to pupil, though it may be achieved by the pupil, under the stimulus of the teacher. In cultivating the disposition to do the right our reliance must be placed in these three things, viz. right bringing up, the location of responsibility, and reaching the individual pupil according to his type of decision. A word concerning each of these.

First, children who are reared right through all the

preceding stages of will from instinct through habit have ingrained in their dispositions a moral bent, receptivity, and responsiveness. Making right adolescent choices is first a matter of having right pre-adolescent habits. As Aristotle, that wise and catholic moralist, observes, "The man who has had a good moral training either already has arrived at principles of action, or will easily accept them when pointed out." Right Rearing.

Second, we may cultivate the disposition to do the right by the definite placing of responsibility upon young thinkers and actors. It sobers, it increases the moral statute, it develops the sense of responsibility. Systems of school management that do not trust older pupils to look after themselves need not be surprised if they are unable to do so when left to themselves. The college boys that give most trouble come from paternalistic schools. The adolescent pupil must learn to choose by choosing. To shield him from bad choices by refusing him all choices is disastrous in the end. Like the race, he too must take counsel of his mistakes. To save from blunders at any cost is not a principle of moral education. President Eliot writes: "This cultivation [of the will] can come only through choosing and doing; it cannot come through submission, unreasoning obedience, inaction, or any sort of passiveness. In this respect a child's training closely resembles a whole people's training. Democracy makes choices and decisions, and acts for itself." [1] Location of Responsibility.

Third, cultivate the disposition to follow the right by dealing with the individual pupil according to his Dealing with the Individual Will.

[1] C. W. Eliot, "The School," *Atlantic Monthly*, November, 1903.

type of decision when you can. With the rational type it is necessary only to reason together in private. With the drifting type, you must attach him very closely to yourself, that he may feel the momentum of your current. The reckless type is to be treated as the over-impulsive child above. The converting type of decision every pupil should be led to make in conjunction with the agencies of the church before leaving the secondary school. Never again will life seem quite so serious as to the graduating high school pupils. It is the time to set the nervous system on the high level. The effortful type of decision will take care of itself; here we have not to teach but to learn.

Problems for Further Study

1. Direct Ethical Instruction.
2. Text-books in Ethics.
3. Freedom of the Will.
4. Limitation of Choice.

References on Deliberating and Choosing

Cooley, Human Nature and the Social Order, ch. XII.
Griggs, Moral Education, ch. XIX.
James, Principles of Psychology, Vol. II, pp. 579–592.
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MacCunn, The Making of Character, Part III, chs. I and II.
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CHAPTER XXVIII

SECURING ATTENTION

Attention conditions Conscious Action.

It may be a little surprising to us at first to find the discussion of attention under the subject of will, but a little reflection will show us that here is the place for it. Each one of the preceding stages in the development of will has really included an element of attention, which we did not then and there notice, to avoid too much complexity in the argument. A little review will now show that consciousness was really attentive also when it was acting under the influences of instinct, impulse, imitation, suggestion, habit, and choice. Had not consciousness attended, either involuntarily or voluntarily, to each of these types of action, it is doubtful whether any action would have taken place. Thus we see that attention is the omnipresent condition of that conscious action which we know as will.

The psychological literature on attention is large, whose conclusions, as hitherto in these practical discussions, we must largely take for granted as known, that we may pass on at once to their bearing on the teacher's work. Just at this point, for instance, it is necessary to omit such topics as the nature, conditions, effects, and explanation of attention, that we may have space to discuss the hindrances and the helps to attention in the work of teaching.

The Meaning of Attention.

We are already so familiar with the term and with that mental condition for which it stands that it will be clear to define attention as consciousness occupying itself with any object. It is important to observe that that object of attention may be either internal or external; that is, it may be a feeling, or an idea, as well as a deed or a physical body. These two directions of attention clearly appeared in the distinction between inner and outer perception in chapter VIII.

All teachers want the attention of their pupils. How to get it and how to keep it after getting it are therefore constant problems. We may profitably begin our inquiry by asking, What are the hindrances to attention? These in themselves are largely removable through our efforts directly, or indirectly with the aid of the home.

Hindrances to Attention.

The enumeration of the hindrances to attention on the part of pupils would include in general three types of things, viz. poor physical conditions, poor mental conditions, and certain poor school practices. To consider these in succession.

Poor Physical Conditions.

Poor physical conditions would include such matters as the following, viz. a weak physical body whose quantity of nervous energy is not adequate to the demands made upon it by a concentrated consciousness; distractions of sight and sounds, the doing of other things than the regular work in hand, such as the opening or closing of doors and windows during the recitation; bad ventilation, introducing noxious gases into the lungs that stupefy brain action; poor temperature

conditions, dividing attention between the work and the physical sensations of heat and cold; and uncomfortable furnishings, seats and desks, that induce continual readjustments of position.

Poor Mental Conditions.

Poor mental conditions that hinder attention would include such matters as indolence, that can and will not attend; obstinacy, that wills not to attend; weak wills, that apparently lack the ability to make an effort; emotional excitement, such as fear, that would attend if it could; intellectual quickness, that does not attend because it does not have to do so in order to keep up; and, perhaps greater than all other poor mental conditions combined, uninteresting work, that does not naturally invite attention. It may be well to remark at this point that the so-called indolent pupil regularly has one or two matters of vital interest to him in which he becomes very busily engaged on every opportunity, and through which he may be reached by knitting on one interest to another; also, that an obstinate child may frequently best be ignored until he straightens out; and also, that the wandering attention of an intellectually quick pupil may often be restrained by habitually calling on him to answer the questions which he did not hear.

Poor School Practices.

Poor school practices that hinder attention are, for example, the requirement that a rigidly stiff bodily position be maintained, as though pupils, to borrow Compayré's phrase, were "thinking statues"; also censuring or punishing a pupil in the presence of other pupils, which for the time being interrupts the whole school order; and the besetting sin of whispering, due

to the fundamental instinct of communication when stimulated by idleness, for which there is no defence, and whose cure is either interesting occupation or voluntary restraint. These, then, are the frequent hindrances to attention, the most of them capable of removal.

The Two Kinds of Attention.

What are the helps to attention? Before we can answer this question it will be necessary to note the two kinds of attention, viz. the involuntary and the voluntary. Involuntary attention is that given to an interesting object, as when a thrilling story engrosses us, or a charming speaker holds us spellbound, or some skilful or exciting performance rivets our gaze, or even when we raise the window shades in the morning to see what the weather is going to be like to-day. In such cases the attention is called involuntary because we attend without any effort of will, but naturally, easily, spontaneously. Voluntary attention, on the other hand, is that given to an uninteresting, though important, matter, as when we hunt through railway guides, unattractive in themselves, to find the train we want, or pursue the study of a difficult and unattractive lesson, or write a delayed letter as a matter of sheer duty, or even turn from an agreeable after-dinner conversation to the routine work of the evening. In such cases the attention is called voluntary because it seems to require some effort of will, some slight or severe struggle, some inhibition of the line of least resistance, a setting of oneself to do what otherwise would not be accomplished. In summary it might be said that the stimulus to involuntary attention is the feeling of in-

terest, the stimulus to voluntary attention is effort of will; in the former we yield ourselves to the agreeable, in the latter we nerve ourselves to do the disagreeable. It is to be noted that the uninteresting object receiving voluntary attention is always deemed by us to be important, that is, it has a bearing on our future lives, as when the youth studies calculus which he does not like for the sake of the future engineering which he expects to like. The point of this remark is that while involuntary attention is our response to an immediate interest, voluntary attention is our response to an ultimate interest. This ultimate interest is not a felt good, it is a conceived good. It is evident that the ability to act through conceived rather than felt goods is one of the differentia of superior intelligence and maturer power.

The Secret of Attention

After this brief excursus into the theory of attention we are prepared to answer with some assurance the question, What are the helps to attention? The psychological principles in getting attention reduce themselves to two, viz. arouse interest and secure effort. How glibly these great words run off from our pen and fall from our lips! Attention through interest and effort, — that is it, surely; interest for involuntary attention and effort for voluntary attention. The secret seems to be in our possession. But what are interest and effort, and how may they be gotten? We have but words until this question is answered.

How to arouse Interest.

Interest is the feeling prompting to spontaneous activity. It may be aroused, first, through whetting

Curiosity.

the appetite of curiosity, taking care to keep the demand slightly in excess of the supply. Where there is no desire to know, there is no interest in the acquisition of knowledge: or, where desire has failed, further supply is satiation, not satisfaction. We teach and we get no attentive response, because there is no mental appetite for our wares. Only those who hunger and thirst after instruction can be filled. Or, as Plato puts it, "Iris, the messenger of heaven, is the daughter of Thaumas." Prepare the minds of the class for the content of the lesson before its presentation is begun. Be inventive of methods of awakening the questioning attitude in the class concerning the topic in hand. We should arouse more interest if we spent less time in communicating and more time in stimulating. Fortunately, nature is on our side, curiosity is an instinct, and to awaken it the slightest stimulus is often ample.

Apperception.

Second, having begun by arousing curiosity, continue by connecting new material with old interests. Every set of boys and girls have a stock of contemporary interests on hand, some personal, some social, some political, and so on, and all constantly fluctuating. Study these, and make the teaching of the lesson an interpretation of life. To every pupil the schoolroom should be the mirror of himself. The interests he brings with him are developed and enlarged and understood by means of the instruction he receives. To miss the point of contact with our pupils is not to teach, it is to be a taskmaster. A lesson begun in wonder and continued as a life process will have the interested, the enchained attention of the class.

Le Conte quoted.

The motor power of interest in education has not even yet been widely enough utilized. Professor Le Conte tells the story in his autobiography of an experience of his with some criminals in a prison in Carson City in 1882. Fossil footprints had been found in the sandstone of the prison yard. He secured the aid of the convicts in blasting out the specimens and hunting for more. He writes, "They enjoyed the investigation intensely and worked very intelligently. We entirely forgot that they were criminals and some of them murderers, and all worked together with interest. The effect of their work and interest in it were wonderful; before dull and sullen, they became bright, eager, cheerful, and happy."

How to secure Effort.

Effort is the will to do the hard right thing. It is necessary for voluntary attention, and Professor Stout makes us pause to think when he says, "All mental training and discipline depend on the victory of voluntary attention."[1] Effort is to be secured through some ultimate, not immediate, interest. Ultimate interests may themselves be either superficial or profound in character. Superficial ultimate interest, leading to the voluntary performance of uninteresting work, would be illustrated by such things as desire for promotion, marks, prizes, and the teacher's word of praise; profound ultimate interests mean the awakening of life purposes, the forming of life plans, the pursuit of chosen ideals, the disagreeable and arduous means for these worthy ends being manfully undertaken for the sake of their outcome. The advance to the profound ultimate

Awaken Ultimate Interests.

[1] Stout, "Manual of Psychology," p. 613.

interests will usually have to be made through the superficial. We may be sure that some pupils will always be stimulated to make an effort, if we show our dissatisfaction at inferior work, if we insist that required work is required, if we evidently set great store by such school habits as neatness, courtesy, regularity in preparation, and punctuality in attendance. But worthy our highest endeavor and most consecrated tact is the awakening in individual pupils of some profound ultimate interest which will seriously occupy their lives despite every seductive temptation to ease or weighty cross to bear.

The Rival Claims of Interest and Effort.

Thus we have suggested that in the art of securing attention it is necessary both to arouse interest and to secure effort. These two great dynamic agencies have fallen in so naturally with the two essential forms of attention that perhaps it did not occur to us at first that really we are treading on a battle-ground, with interest and effort as the historic foes. Yet such is the case. These two are rivals, and it is now incumbent upon us to attempt to adjudicate their claims.[1] Several things are to be said to give each its due and to remand each back to its proper place in educational training.

Old and New Education.

The first thing to be said is that interest is the strength of the new education and effort is the strength of the old. In the new education, child study, the growth of games and play, the elective system, the note of individuality, the decrease of espionage, and increase of

[1] Cf. Dewey, "Interest as Related to Will," Herbart Year Book, 1895, second supplement.

trust in pupils to care for themselves, — all this means the presence of interest. In the old education, study of texts, long, hard hours, the repression of instincts, the prescribed system, the absence of nature study and history, the bare walls and plain furnishings, — all this meant effort. The danger of interest alone is a consequent flabbiness of character, it is said, as the danger of effort alone was a certain narrowness and severity of character. This contrast between the new and the old is strikingly set forth by a defendant of the old in the following language: "The whole new system of education, from a child's first school to a man's last degree, is based on this principle, which we may call the principle of the kindergarten, — not literally, of course, but in general temper. You must try to find out just what everybody likes best and then help him to do it as kindly as you can. . . . The practical aim of a general education . . . is such training as shall enable a man to devote his faculties intently to matters which of themselves do not interest him. The power which enables a man to do so is obviously the power of voluntary, as distinguished from spontaneous, attention." [1] The new education, whose strength is interest, cannot afford to cut loose entirely from the strength of the old, which came through effort. Interest has come to stay, but, in a world where the duties are often disagreeable, effort must not go.

Children and Adolescents.

Second, we must rely primarily upon interest with children; we must be able to rely upon effort, if neces-

[1] Barrett Wendell, "Our National Superstition," *North American Review*, September, 1904.

sary, with adolescents. Involuntary, immediate, sensorial attention characterizes animals, primitive men, and children; in addition thereto, not instead thereof, voluntary, derived, intellectual attention characterizes adolescents and mature civilized minds. The divisions are not sharply defined, but they exist. A child has a maximum of involuntary and a minimum of voluntary attention; an adolescent may have a maximum of voluntary, and a minimum of involuntary attention. The adolescent does not lose what the child had, but adds to it. This means that the elementary school work must be essentially interesting in character if the attention of children is to be had at all; this is nature's doing, not ours; we must teach children as we find them, or fail; they belong not so much to themselves as to the attractive stimuli of their environment. What little and increasing voluntary attention they can give should be stimulated as rapidly as it appears, while our main dependence is not upon this tender shoot, but upon the sturdy interests native to the child's nature. Our principle also requires us to expect and demand effort from secondary school pupils whenever effort is necessary for the work in hand.

Mutual Services.

Third, in the adjudication of the rival claims of interest and effort, we must observe their reciprocal services to each other. These services may be shown in several ways: for example, a course of study or work undertaken with interest and enthusiasm may become, frequently does become, stale and uninviting, though still recognized as important; at this point effort must carry the course through to its conclusion. Many of

the philanthropic and humanitarian enterprises of society have been undertaken in bursts of enthusiasm, amid the waving of banners and the applause of men, only in the end either to be deserted or to be perfected through faithful and arduous labor. Such is the regular history of building funds, mission funds, and mediæval and modern crusades of all sorts. Thus effort serves interest.

To take another type of illustration. The true end of interest is not play, but work; not amusement, but solid achievement; not diversion, but productive occupation. Interest begins the process which effort ends. Interest is the path and effort the destination. Fortunate is he whose interest follows him within the gates of the city of his effort and takes up its abode with him there. Interest may be present in the final labor of effort, and is so in the finest results of man's work, but it is necessary that the work be the fruitage of the interest. The essential thing is that the interest lead somewhere and be not mere pastime. Thus interest is the means to effort and effort is the end of interest.

Still another type of illustration of the reciprocity of interest and effort. Many a beginning is difficult, starting is hard, taking hold is delayed, getting up momentum is with many a jump and jerk. Effort is always necessary to start a difficult process. Once going, the process continues almost of its own momentum. The subject, so difficult at the beginning to grasp, so novel, so unfamiliar with all we have known, as we pursue it grows upon us, becomes easier, and develops

interesting bearings. To continue such a study is no longer the effort it once was. We began it because we had to; we continue it because we want to. Many a man will avow that the business that engrosses his interest to-day was once thrust upon him through no choice of his own and pursued at first with many struggles and backward looks. The work once hard has become easy, once effortful has become interesting. Thus interest serves effort.

Summary.

And so, in sum, the rival claims of interest and effort are to be adjusted not by an "either . . . or" which excludes one of the two parties, but by a "both . . . and" which includes the two parties; interest to make us work, work to make us interested.

Secondary Ways of winning Attention.

Given both interest and effort, the problem of attention in the schoolroom is solved, and solved according to the fundamental principles involved. There are certain secondary ways, however, of getting and holding attention, whose utility we must not fail to estimate. These secondary ways of winning attention may be either negative or positive in character, and to each group we will briefly advert.

Negative Aids to Attention.

First, there are certain fairly effective but poor ways of getting attention. For example, we may beg it as a favor, claim it as a right, preach the importance of the subject, snap the fingers, rap on the desk, threaten, or promise rewards. The use of any of these means is practically a confession of our failure as teachers.

Asylums of Weakness.

Mechanical Aids.

Second, there are certain mechanical aids to attention, easily usable by all, and helpful in themselves. Such

are, avoid any routine, however good; introduce variety; change the stereotyped method of asking questions; question the inattentive; stand after sitting; give all something to do; provide extra problems not in the book; review; illustrate; dramatize history; modernize arithmetic, using current prices; in short, variety in unity is the secret of all engaging teaching.

Avoid Fatigue

Third, the attention of children is not to be fatigued. Where recitation periods, or periods between recesses, are too long for the attention to remain on the *qui vive*, the indoor recess or "the setting up drill" is to be utilized. Two minutes of freedom and fresh air will often save ten. That careful and patient observer of children, Professor Baldwin, writes: "The periods of study had better be too short than too long; for if the child grows tired, the effort becomes painful and the subject distasteful. Frequent recesses should be given, and recitations should not be longer than fifteen to twenty minutes for children under twelve to fourteen years of age. The child's interest should never be allowed to flag." [1]

and Early Specialization.

Fourth, a single subject should not engross attention in early life. During the period of greatest plasticity, concentration upon a single subject gives the mind a bent in that direction, and prejudices it against general truth. The hobbies, even the monomanias, of age may sometimes be traced back to unbalancing and grewsome nursery stories. It is not good for attention to receive its set too early in life.

Fifth, to prevent mind-wandering in oneself or pupils,

[1] Baldwin, "Senses and Intellect," p. 78.

Use Many Senses.

it may suffice to use more senses at once. Supplement talk with chalk, pictures, and objects; read with the mouth as well as the eye; hear with the lips as well as the ear, repeating the speaker's words after him. To use many senses instead of one is like storming a citadel from different directions at once. It should be said, however, that some mind-wandering is not preventable, that perfect concentration is not possible. A concentrated attention is not one which never leaves the main track, it is one which does not stay side-tracked.

Positive Aids to Attention.

Passing from these negative considerations, we may note certain positive secondary ways of securing attention. And first, the lesson we teach must develop under our handling during the recitation, and it must

A Developing Lesson.

develop as rapidly as is consistent with the understanding of the class. No halting, nor even marking time, but a forward marching, as the subject unfolds itself, is necessary for the attention to be kept. Attention is more easily caught and kept by a moving than a stationary sign; just so the object of attention in the class-room must be continually changing and presenting new faces.

A Good Schedule.

Second, a right arrangement of the schedule of work facilitates attention. The curve of vitality is highest in the first hours of the morning, there is a gradual decline until the lowest point is reached in the first part of the afternoon, when there is a tendency upward again. The work requiring closest attention should come during the freshest hours, and the work permitting rather dispersed attention, especially work with movement of any kind in it, may profitably come in the early afternoon.

Attention Exercises.

Third, introduce attention exercises, providing a place for such in the regimen of the school. Such exercises may be illustrated in this way, viz. read a story aloud and ask for an abstract of it; read a stanza of a poem and ask that it be repeated; read a long sentence and ask for the number of words it contains; give a long easy example in mental arithmetic; have as much multiplying done as possible in two minutes; take a long word and let each pupil name one letter; walk by a store window and make a list of its contents; in three minutes write out all the characteristics of an object; and so on. Such exercises will probably not develop a power of attention equally applicable to other and dissimilar subjects; they will probably give increased power of attention in similar subjects, and most important of all, they acquaint pupils by experience with what attention really is, leading them to feel and appreciate the value of attention, and so perchance giving them the idea that the way to work mentally is with a concentrated attention. Thus attention may not become a general habit equally applicable to all subjects alike, but, what is better, it may be adopted as a conscious principle of mental work.[1]

Vitality in Teacher

Fourth, teachers who would have attentive classes need to be possessed with physical vitality. The teacher must be much alive who would have a wide-awake class. His room must be filled with his presence as an atmosphere charged with electricity. Given this condition, he controls the attention with a look, with a question,

[1] Cf. F. C. Lewis, "A Study in Formal Discipline," *School Review*, April, 1905.

with a story, with a bit of humour, with whatsoever the occasion happens to demand.

and Enthusiasm.

Fifth, the teacher who lacks attention from his class needs to love his subject more. Enthusiasm concerning any matter is a contagion. He who, forgetting all else, throws himself mentally and physically into the work of teaching his subject because he loves it, believes in it, and wants others to know it and be benefited by it, will carry away the attention of his pupils as with a flood. Cultivate your own interest in your subject by finding out something more about it. The astronomer like Professor Young makes us want to be astronomers when under the spell of his influence, an historian like Professor Hart makes us want to be historians, and Socrates would have certainly made us philosophers. Given the good teacher, the problem of attention vanishes, like the mist before the sun. Thus, when the last word is said, attention is not so much a condition of good teaching as its result.

Summary of Moral Education.

Thus we have passed in review the development and training of the will. Fit occupation this for honest souls, brave hearts, and strong minds. We have seen the complexity and the stretch of will from lowest reflex action to highest voluntary attention; the importance of knowing and directing the instincts of pupils; the necessity of strengthening right impulses and inhibiting wrong ones; the way to check the overimpulsive and forward the underimpulsive child; the kinds of models that children imitate and refuse; the effective way to give a suggestion and the detrimental

suggestions in home and school from which our pupils are suffering; the determining influences of habits in life; the two essentials in the direct education of the will; and the creative words, interest and effort, in securing attention.

But when all is said and done, the training of the will is no easy matter. We must bungle and botch many more children fresh from the lap of nature in the very vitals of character, and pray God's forgiveness, before the home and the school can develop manhood aright. But here, as everywhere, study, trial, error, will bring us slowly toward success. Meanwhile, the sum of it all is, we truly educate the will when, by any or all of these ways, to immaturer selves than our own we freely give ourselves, who are Christ's, who is God's.

Problems for Further Study

1. The Nature of Attention.
2. The Kinds of Attention.
3. The Effects of Attention.
4. The Physiological Explanation of Effort.
5. Attention and Will.

References on Attention

Adams, Herbartian Psychology Applied to Education, ch. X.
Aiken, Methods of Mind Training, ch. III.
Baldwin, Methods and Processes, ch. XV.
Calkins, Introduction to Psychology, ch. XI.
Fitch, The Art of Securing Attention.
Hughes, Securing and Retaining Attention.
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Thorndike, Educational Psychology, ch. VIII.
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PART V

RELIGIOUS EDUCATION, OR EDUCATING THE SPIRIT IN MAN

INTRODUCTION

Meaning of Spirit and Religious Education.

At this point we begin the discussion of religious education. Too frequently religious education has been regarded as a thing apart, as a certain kind of education distinct from all others, or as the education of a certain section of the human nature distinct from other sections. Of course, this view of religious education belongs logically with a certain view of religion; namely, as something apart from the ordinary and usual life and interests of man, or as something dealing with a distinct element in his nature, or as something foreign that has to be grafted into his unreligious nature. The inclusion of the discussion of religious education in a book of this kind is intended as a protest against all this way of regarding religious education and religion. Rather is religious education the natural and logical conclusion of all education, just as religion is the natural and complete expression of man's being.

And the spirit whose education we now undertake is not a mysterious and inaccessible entity within us, nor a part even of our accessible being, nor least of all a foreign element introduced into man by religion; it is simply and clearly the whole consciousness in its relation to deity. The education whose procedure we have so far been following has dealt with certain elements in the spirit of man; the education whose nature we now begin to consider unites these elements in the

conscious spirit of man and directs that spirit to its home in God. By the spirit we mean, then, mind in relation to deity, and by educating the spirit, or religious education, we mean bringing man in his integrity into right relationship with God.

Order of Discussion.

In conformity with and in justification of this conception of educating the spirit there are certain principles which guide us, whose statement must come at the beginning of our discussion. Then, still following here, as in the preceding parts of the book, the lines marked out by modern psychology, we must consider the development and training of the religious nature. Next will come the trio of the great and mutual agencies that serve the interests of religious education, viz. the home, the school, and the church. The general negative tone running through the discussion of the school will be relieved by a parallel positive tone and especially by the discussions of home and church on either side of the school. Finally, though the curriculum of religious education is vast and wandering, it will always have one central text, with whose consideration we conclude. Turn we then to these discussions as to the fulfilment of the uncompleted educational processes hitherto considered.

CHAPTER XXIX

THE PRINCIPLES OF RELIGIOUS EDUCATION

We come then to a statement of the principles of religious education.

All Truth is God's Truth.

In the first place, all truth is really God's truth. We feel this must be so when once we seriously face the question whether truth be a unity and so self-consistent, and so really the thought of God concerning reality. The truth which jesting Pilate sought was enfleshed before him, namely, God's thought of a man. The truth which the scientist seeks is embodied before him, namely, God's thought of a world. In man, in nature, the truth is the thought of God. This of course means utter justification for the common feeling that any least shred of truth found anywhere, in remotest star, in the solid earth, in a stirring emotion, or in a quieting thought, is sacred, having somewhat of divinity about it.

The Nature of Truth and Intellectual Education.

But truth is the ideal of the intellect, it is the object of science; and the quickening of the sense of truth, we saw, is the very aim of intellectual education. But if all truth is God's truth, then intellectual education ought to bring man to God as the source of truth, and itself becomes one of the indispensable agencies of religious education. It is gloriously possible for man to love God with his mind.

Religion and Science.

This principle forbids religious education to countenance the unwarranted distinction between scientific truth and religious truth. Truth is truth wherever found. It is the business of science to find the truth; it is the business of religion to claim that truth for God. That which science discovers it is the business of religion to appropriate. It is never the business of religion to deny scientific truth, to do so makes it ridiculous; it is never the business of science to deny that the truth is God's, to do so makes it arrogant. Religious education appropriates intellectual education as its indispensable agent in bringing the intellect of man to God. And the teacher of the intellect is to handle the truth as the word of God; to do so is to be a religious teacher. Like Kepler, he must feel that a scientific discovery is a rethinking of the thought of God.

All Beauty is God's Beauty.

Second, all beauty is really a manifestation of the perfection of God. He who dwells with joy on certain beautiful or sublime scenes of nature, when all her torches are aflame, when on every side is a burning bush, when a pillar of cloud is a shekinah for his pilgrim spirit, feels it must be true that the course of nature is the art of God. And also when in sight or hearing of what artist souls have first imaginatively created and then sensibly expressed on canvas, in marble, or in tones, it is easy to ascribe to them, not in fancy, but in fact, the *divinus afflatus*. The soul gifted with a passion for the perfect and with a capacity for its expression entertains visions of the eternal. That

beauty which haunts us when we have it not, and satisfies us, the only thing that does satisfy us, when we have it, is of a piece with divinity or divinity is unexperienced by man. Plato is voicing the consciousness of the artists of every age in his half-true myth: "But of beauty, I repeat again that we saw her there shining in company with the celestial forms; and coming to earth we find her here too, shining in clearness through the clearest aperture of sense." [1]

The Nature of Beauty and Æsthetic Education.

But beauty is the highest object of the emotional experience of man, and to quicken the human sense of beauty is, we saw, the very aim of æsthetic education. But if all beauty is God's beauty, the conclusion of æsthetic education is religious. In bringing pupils into an appreciation of beauty, we are really bringing them into acquaintanceship with the perfection of God as revealed in the works both of nature and of man. And the teacher of art who treats beauty as a divine communication is a religious teacher, and the æsthetic education he is achieving is at the same time, *pari passu*, one of the elements of religious education.

Religion and Art.

This principle forbids us as religious teachers to countenance any ultimate distinction between art and religion. The impersonal beauty which art incorporates and enjoys is one of the qualities of the Person whom religion worships. Religious education will not alienate art from its endeavors to bring man into relationship with God, but will include art as one of the indispensable means of reaching Him who is invisible through the things that do appear. As the scientist

[1] "Phædrus," 250 D, Jowett Tr.

has seen the truth, so the artist has sensed the perfect, and the word is nigh them, even in their retort and in their brush.

All Goodness is God's Goodness.

Third in the list of these fundamentals of religious education is the principle that all goodness is the goodness of God. There is none good but One, and whosoever is good upon the earth shares the goodness of the One. To recognize in any man a good character is to recognize something of the divine in him, and any man who finds it in his heart to will the good can say truly, thus far, "I and my Father are one." To will the good is to identify man's will with God's will; to will the evil is to oppose man's will to God's will. The evil that men have is their own, their goodness is God's; their goodness is their own only in the sense that they have appropriated so much of the divine will. If man's goodness were all his own, and not God's, it would be possible for man to increase the amount of goodness in reality, and so to be a profitable servant unto God. But such a conception is untrue to the spiritual intuitions of the best souls who ascribe all the praise for what they are and do, not to themselves, but to God. To say that some goodness is not the goodness of God is to deprive God of that absoluteness which characterizes deity and to reduce His goodness thereby to a finite quantity. Thus deep intuition and pure reason alike unite in affirming that all goodness is God's goodness.

But to quicken the sense of goodness in man, to give him both an intellectual discernment of right and a

responsive disposition to pursue it, is, we saw, the very end of moral education. Therefore a religious education, seeking to bring man into a conscious relationship with God, must include within itself moral education as one of its essential elements. To make men good is so far forth to make them divine; to love goodness is to love a chosen way in which God manifests Himself to men. Goodness, the ideal of moral education and of all man's best endeavor, is really the revelation in the finite of the will of God.

The Nature of Goodness and Moral Education.

This means that we as religious educators must esteem more highly him whom we sometimes stigmatize as the moral man, that we must discontinue to countenance any ultimate distinction between religion and morality. Religion is the whole of which morality is one of the parts, and he who possesses this part is not far from the kingdom of religion. Him whose will the moral man ignorantly performs we must declare. Pursue morality to the end and find God; or, as Kant expresses it, religion is the recognition of the moral laws as the commands of God. In addition to this view of Kant, we have attempted also to indicate that religion is the recognition of the beautiful as the feeling of God, and of the true as the thought of God. Upon every preceding educational ideal of man religious education writes, Holy unto the Lord. It comes not to destroy science, art, and morality, but to fulfil them.

Religion and Morality.

Fourth, we are now brought to a definition of our conception of God as the ideal of religious education. Just as religious education is the inclusive culmination

The Conception of God.

of intellectual, emotional, and volitional education, so we think of God definitely as the self-conscious unity of truth, beauty, and goodness. It is transcendently true that we do not completely know God, that our ignorance is all but total; however, it is gloriously true that we do partially know God in so far as in either others or ourselves or nature we find an iota of truth, but the tattered garment of beauty, or an unfinished deed of goodness. God is the absolute Person whose thought is true, whose feeling is beautiful, whose will is good. He is not an abstract inaccessible being, nor a supernatural anthropomorphic being, but the inclusive personality in whose life all natural and human processes occur. The true immanence is not of God in us, but of us in God. Only so can religion shed the glow of the eternal upon every valuable human thing, only so can religious education infuse a saving spirit into all education, only so can our conceptions somewhat cease to belittle both the greatness and the nearness of God. To deny that God is the self-conscious unity of truth, beauty, and goodness is fraught with fell consequences for religious education, — it removes any psychological basis for it, it removes all the means at our disposition for attaining it, and it removes God from all human experience.

The Nature of Religion.

As intellectual education seeks the knowledge of the truth, as emotional education seeks the feeling of beauty, as moral education seeks the volition of the good, so religious education seeks acquaintanceship with God. And God we now see to be the conscious-

ness in which all human ideals are real. These conceptions enable us to take the next step and attempt to state the nature of religion. Fifth, then, as demanded by the preceding conceptions and as evidenced by observation of its phenomena anywhere, we may say, religion is the response of man as a unit to divinity. The unit man includes his thinking, his feeling, and his acting. Man's religion is his thought about God, his feeling toward God, and his conduct in relationship to God. Man's thought about God is responsible for mythologies, cosmologies, faith, doctrine, creed, belief, etc.; his feeling toward God is responsible for his experiences of fear, awe, dependence, reverence, trust, humility, love, etc.; and his conduct in relationship to God is responsible for his ritual, ceremonies, sacrifices, and such action as his religion sanctions. Thus religion is not reducible to one of the elements of human nature as its basis, but writes itself large upon human life in its integrity. The psychologist finds no religious section in human nature, — religion is the whole human nature divinely related. From no hidden recess in the human constitution is God excluded, from no phase of human experience is God eliminable, in no remote part of man's environment, whether the cleft of the rock, the terebinth tree, the oaks of Mamre, the monitorial stars by night, — nowhere is it impossible to find Him who is All in All. This is not a vague pantheism, but the concretest theism; God is not an impersonal universal essence, but a personal individual consciousness, and religion is man's experience of God.

All Education is ultimately Religious.

Sixth, the principle follows almost as a matter of course that all education is ultimately religious in character, that is, the ultimate object which it seeks and with which it deals is God. All the subjects in the curriculum have their ultimate origin and foundation in the character of God. The permanence of His thought makes it possible for a scientific knowledge of nature and man to be attained; His love for the perfect makes it possible for visions of beauty to flit across the face of nature and haunt the minds of men; the goodness of His will makes it possible for a nature and a history to evolve in time toward some better thing to come. Our difficulty is that we as teachers do not always recognize our educational endeavors as finally religious in character, and that we teach our subjects most truly when we teach them as divine revelations to men, and fervently, as unto the Lord.

All Religion should be Educational.

Seventh, because religion includes the intellectual element in man, all religion should be educational in character. Religion has a truth to teach, a message to deliver, and intellects to train and possess. To omit instruction in the church is to invite both emotionalism and disbelief: emotionalism which follows the lead of whatsoever chance ideas may be present, and disbelief through lack of any credible system of thought. In addition to inciting to good deeds and satisfying the heart, the church and the ministry must give definite instruction in righteousness. It is equally true that, in order to reach the whole man, religion must be other than educational; but it must be educational too, and

this brings us to the question, What is religious education?

The Nature of Religious Education.

Eighth, the great abiding aim of religious education is the normal development of the religious nature. Man is by nature as truly religious as he is intellectual, or emotional, or volitional, or social. There is too, naturally, a religion of the child. As the early Christian fathers were accustomed to say, *anima naturaliter Christiana*. Religion is thus not an artificial graft into human nature, it is the natural blossoming of human nature. Our problem is, thanks to the gospel message concerning babes, sucklings, and children, not to change a birthright of irreligion or unreligion, but to quicken in children their birthright of religion. A leader of the Jews, like Nicodemus, an adult who is unacquainted with the ways of God, needs to be born again, that is, to be born from above; he needs to be converted and become as little children, for of such is the kingdom of heaven. The little children are already members of the kingdom, they need no miracle of grace to make them so, they are already converted to God. Our only problem, and great enough it is, is to see that children are not converted away from God. It is the gospel message; were it otherwise I should not have the faith and the courage to utter it. The gospel sets a little child, not one selected with care from the company of Jewish children by the roadside, but any little child, in the midst of the adult followers of Jesus as the object of their imitation. This is not to say that our children are now past our assistance and need

nothing from us; it only means that what they need from us is right development. Nor is this to say that when children become adolescents they are not to know confirmation and conversion; it is only to say that confirmation and conversion should follow in the child's life as the fruit follows the blossom. Conversion should not be a catastrophe, but as the falling of ripe fruit. The religious nature inborn in children needs only to grow, and the growth that is natural and vital is very gradual during the years preceding adolescence. As Dr. Haslett has shown: —

"The ideal method is for the child to grow and develop through proper environment and instruction and training into a religious experience and life more and more advanced with the years and for the most part unconscious, and then when the golden time arrives, as arrive it will, naturally from about twelve to eighteen, there will be a normal tendency to manifest the religious change known as conversion publicly and in some more tangible and lasting form, and when sober judgment and reason may give meaning to the experience." [1]

In harmony with the Christian views of child life, religious education is thus a certain growth of the whole life, its growth Godward. Religious education is not the safe passing of an adolescent crisis; it is a present process. As intellectual education develops the sense of truth, as æsthetic education develops the sense of beauty, as moral education develops the sense of goodness, so religious education develops the sense of God.

[1] Haslett, "Pedagogical Bible School," p. 132.

Religious education is the enlargement of man's experience of God. It includes correct teaching about God, cultivating right feelings toward God, and securing right conduct as in the presence of God.

Action and Feeling before Thought.

Ninth, the correct order in educating religiously is first the action and feeling, and then the idea and thought. The child is primarily a doer, not a thinker; he abides in the region of the concrete, not the abstract. Children can do right, and so feel rightly, before they can think rightly. It is through obedience to the commands of God, and feeling our dependence upon God, that children finally come to think rightly about God. The same principle also holds with adults; whosoever is willing to do the will of God shall know of the doctrine. Definite, practical righteous action will clarify the murky, doubting atmosphere of thought; the worker has faith, the indolent doubts. The trouble at this point is that in religious education, as in all types of education, we have begun with children on the intellectual, abstract, passive side of life rather than on the practical, concrete, and active side. In emphasizing right thoughts about God in our religious teaching, we have neglected the weightier matters of right feelings toward God and right action in deference to His will. The cup of cold water, the pouring into wounds of oil and wine, and visiting the sick are more important for children, and men too, than answering such questions as, Who is my neighbor? Who shall be greatest in the kingdom? or, Whose wife shall she be? Understand me, to think correctly about

the ways of God is not a negligible value, but is best securable through prior feeling and action. What the Sunday-school teacher is able to get his pupils to do during the week to come is more important than what he is able to get them to think this Sabbath morning.

The Word must be made Flesh.

Tenth, the problem of religious education must be solved by persons. Only when parents and teachers with developed religious natures share a common life with children of undeveloped religious natures can there be the quickening and the growth of the religious life. The lower cannot lift itself of itself into the higher; the higher must be both the impulse behind and the attraction beyond the lower. If the adults with whom the children associate are not religious, the children cannot become so; just as if there were no divine life within and without human life, man could not have become the essentially religious being he is. The solution of religious questions is vague in terms of ideas, it is concrete in terms of some religious person's life. The interpretation of *the* religious life must come from *a* religious life. Every religious teacher is thus an incarnation to his pupils, as when the missionary faces a primitive people without words for the ideas of his gospel, he must *be* his gospel. In every true religious teacher the word again becomes flesh, and of him any one of his pupils may say:—

> "All familiar things he touched,
> All common words he spoke, became to me
> Like forms and signs of a diviner world."

Religious Education never ends.

Eleventh, we have been thinking of the beginnings of the religious education of man; it is time to think of its conclusion; but here all time seems to open up before us, and we are able to set no limits to religious education. Rather, the infinite Word, God, is its limit. Religious education is like the mathematical case of a finite progression toward an infinite limit, always enlarging and approaching, but never there. Before self-consciousness children are subject to intangible religious influences from the nourishing environment of the home; after self-consciousness, the progress through boyhood and girlhood, through youth and adolescence, through maturity and advancing age, is all one journey toward God, our goal. Religion is man's experience of God; the widening of man's experience of God seems as boundless as the capacity of man and as endless as the swift flight of years. Since God is our chosen haven and the infinite stream of time is the path of our voyage, religious education can never end.

Problems for Further Study

1. Dualism and Monism as Philosophies.
2. Idealistic Theism as an Acceptable Philosophy.
3. The Kingdom of Nature and Grace.
4. The Causes of Separation of Religion and Life.

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CHAPTER XXX

THE DEVELOPMENT AND TRAINING OF THE RELIGIOUS NATURE

Aim of this Discussion.

In this discussion we must attempt to describe the religion of the developing individual in his different stages and to suggest corresponding ways of training. The religion of the child and youth will naturally concern us most, for with the religion of maturity and the ways of cultivating mature religious interests we are more familiar, though not sufficiently so.[1] The child, the youth, the man, are large and convenient designations of epochs in religious development.

General Guiding Principles of this Discussion.

Looking at our subject in the large, there are certain guiding thoughts that may be profitably stated at the very beginning. Childhood is essentially the period of muscular activity; so with the child the essential thing is to secure the performance of religious deeds. Youth is essentially the period of independent thinking; so with the youth the essential thing is to secure an independent and personal religious experience and outlook on life. This is not apart from, but in addition to, the religious deeds of childhood. Manhood is essentially the period of large achievement; so with the man the essential thing is to secure a consecrated social service. This too is something not apart from,

[1] Cf. Coe, "The Religion of a Mature Mind."

but in addition to, the religious deeds of childhood and the personal religious experience of youth. And the guiding thought under all is that this process of religious development is a unity from the beginning to — there is no ending. It is hard to make a religious youth out of a child untrained religiously; it is almost impossible to make a religious man out of a youth and child untrained religiously. It is easy for a child religiously trained to become a religious youth; it is almost as easy for the religious youth to pass on into religious maturity. This progress all depends on the nature and efficiency of the religious and educational environment. We must consider more in detail the nature of the religious needs and of the right religious training in each stage of development.

Religious *laissez faire.*

The practice of many people and the theory of some is that the religious nature of children needs simply to be let alone. Indifference to the higher life is the usual cause of the practice. The theory is held by the literal followers of Rousseau, who would not permit Émile to hear the name of God before adolescence; by the defenders, whether wittingly or unwittingly, of the Enlightenment; and by the advocates of reason as giving us the heart of existence. Concerning this rationalistic position it is well to remember the saying of Goethe that existence divided by reason leaves a remainder. Perhaps it is through this remainder that the religious nature of children may be reached.

In contrast with this position let me suggest several reasons why the religious nature of children should re-

ceive attention. First, children actually possess a religious nature. It is not the religious nature of the adult civilized man; it is primitive, childlike, in character, but, such as it is, it is definite, present, real.

Why not? Religion a part of Childhood.

Second, they have this religious nature by good right, it is the right of racial inheritance. Religion is one of the ways by which man has adjusted himself to his world, it is one of the conditions of his survival, it is bred in the bone of his children, like the instincts of fear, anger, and self-preservation.

A Racial Inheritance.

Third, they have this religious nature as a matter essentially of feelings and will, and only secondarily, if at all, as a matter of reason. And religion is comprehensive enough to cover these terms as well as rationality. Though religion is a reasonable expression of man's nature, it were an egregious error to identify reason and religion.

Emotional and Active in Character.

Fourth, it is the business of education to develop aright all inherent capacities. Given a religious nature in children, it is not an educational option to cultivate or neglect it. What is elemental in human nature the educator must fashion. What nature and its God have joined together, let not the teacher put asunder.

The Business of Education.

Fifth, it is one of the wonderful new facts that adolescence is likely to strengthen the tendencies the child brings with him. When reason does come with its full force into the individual life, there must be a background of solid habit and good training whose value attests itself. Without a religious life in the years of childhood, the mill of reason grinds emptily in youth. We may feel free therefore to undertake a

Childhood influences Adolescence.

consideration of the religious development and training of childhood.

In Childhood.

For this purpose the period of childhood may be roughly divided into two parts, viz. early childhood, or infancy, from birth to about six years of age, and later childhood, from six to about twelve. It will be borne in mind with reference both to these divisions of time and to the characteristics of the religious life in each period that are to follow that only average results are our aim, and that the next child you see will be in some respects exceptional.

The Religion of Early Childhood.

Under six years of age, the religious life of children is very vague and ill-defined, as would be expected. They do not know much about the meaning of, nor show much of the presence of, such religious emotions as sympathy, humility, self-sacrifice, mercy, repentance, and forgiveness. This is nothing more than saying that children in their religious life are not little men and women. They are just children. But the important thing to recognize is that there is a religion that children have, comprising the very germs from which all later development is to spring. The religion of a child under six consists in its love for its parents and other members of the family, its vague sense of dependence on them to supply its wants, its fear of the consequences of disobedience, its pleasure in anticipating the rewards of obedience, its imagination peopling the dark and the woods with beings, its open-eyed wonder at every new phase of real experience, and its vague feeling of mystery, indicated in the changed

tone of voice when it repeats or hears a prayer it does not understand. A mind familiar with the history of religion in the race would probably locate the child in the period of primitive animism. It is evident from their enumeration, incomplete as it is, that these characteristics contain the simple forms of many complex developments in mature religion.

The Religious Training of Early Childhood.

The religious training of the child under six will consist in being kind to him, initiating him gradually into the customs of religion, getting him to do the unselfish deed of which he might not have thought himself, showing pictures of children and animals, being consistent with rewards and penalties, securing regular obedience, directing the imagination to pleasurable objects only, exercising patience in meeting his wants, permitting only good things, forbidding only evil things, providing associations with other children, and ministering to its life out of the fulness of a religious heart.

Some of the things mentioned in the above paragraphs will seem remote enough from religion as adults know and practise it. This is partly because we do not fully realize the unity of the conscious life, the interconnectedness of religion with all things else, and partly because religion is too detached a matter in most adult life.

The Religion of Later Childhood.

Passing on, the characteristics of the religious life in later childhood are partly the preceding ones further grown and partly new ones. They include such things as imitation of elders, the influence of suggestion, custom and habit, punctilious emphasis upon externals,

the recognition of law, the obedience to authority, symbolism, many and contradictory principles of conduct, credulity, the sense of the naturalness of miracles, love of the mythical and mythological, the devotion to form, superstition, together with premonition of deep religious stirrings, and the sense of an awakening soul. Again our historian of religion would say the child is in the period of primitive polytheism, myth-making, and ritualism. Perhaps he is right in part, but in addition there are the influences to be traced of ten years' life in a religious home. Under the influence of such a present potent environment much that is original in the child's nature is modified and redirected and rapidly outgrown.

The Religious Training of Later Childhood.

Religious training during the period of later childhood will include a correct religious example, the suggesting of deeds of religious service, the formation of correct habits, a just law, a gentle yet firm authority, the implanting of a few elemental principles of conduct like the Golden Rule, the unviolated principle of veracity in one's own life, walks with the father through field and wood, helping the mother in the home, the unstinted use of the world's best stories, particularly those of the Old and New Testament, regularity in attendance upon religious service, an interested and reverential nature study, the teaching of simple truths about God, such as His presence and help at all times, and the careful avoidance of religious precocity. It is very easy to overstimulate the religious nature of twelve-year-old children. In this connection it is well to remember that Jesus at twelve represents the early

Oriental adolescence, corresponding more nearly to fifteen with us. Before adolescence it is better to guide than to press the natural religious development. Precocity in religion as in other lines is likely to mean a weakened maturity.

Both these descriptions of and prescriptions for the religion of childhood have been general and vague and unillustrated. Perhaps enough, however, has been said to indicate that the child has a religion of its own, that this religion is to be understood and cultivated, and that we understand and cultivate a child's religion best when we simply take it as a natural part of a natural child's life. The mother's knee, the mother's face, and the mother's love are the alphabet of every child's religious training. Every mother should rear her child as a possible saviour in his own way of his people from their sins.

In Youth.

For our purposes the period of youth may be divided into three parts, viz. early adolescence, from about eleven to about fourteen years of age; middle adolescence, from about fourteen to eighteen; and late adolescence, from about eighteen to twenty-four. It will always be noticed that boys are slower in developing physically than girls. It will also be noticed that our divisions for this religious discussion are physiological in character, a fact of great significance in itself.

The Religion of Early Adolescence.

Early adolescence covers the last years of the grammar school. The period is often spoken of as that of puberty. The key-word of this stage of religious

development is, if we may so express it, God is love, for, physiologically, love is god. The scientific students of human nature, — anthropologists, sociologists, psychologists alike, unite in affirming an intimate relationship between the social and religious instincts. They both show a love of others; self-sacrifice; a heightened sensitiveness to phenomena of nature; a vivification of any act or object or experience associated with the object of one's affection; the expression of feeling in music, poetry, and rhythmic movement; alternating humility and exaltation; and many other analogies. There are other characteristics also of the religious development of early adolescence, among which should be mentioned the beginning of abstract questioning as a supplement to earlier concrete acting; the sense that religion has an inner meaning, that its nature is spiritual, though the full significance of this idea is inexhaustible even in maturity; and the transition is beginning, fraught with such future moment, from authority to experience.

The Religious Training of Early Adolescence.

The religious training appropriate for early adolescence is preëminently social religious influences, — it is the social stage in its real initiation. The more unconscious the influences the better the results. No traps should be set, — in vain is the religious net spread in its sight. Natural growth is best. It is the great period for the first awakening of ideals. They give objects to budding aspirations. Hero-worship calls out and satisfies lofty emotions. The reading should be widely biographical in character. This period is the great opportunity of evil companionships to

corrupt good morals; the expanding soul is safe only in an atmosphere of congenial, natural, wholesome religious associates.

The Religion of Middle Adolescence.

Middle adolescence practically covers the secondary school period. It is the most important epoch in individual development. The whole life, physical and mental, is coming into its power. Whether this power be used or abused is the question determinative of the future. The religious development of this period is perhaps characterized by the term *individuality*. The sociality of early adolescence issues in the individuality of middle adolescence. About individuality as a nucleus cluster many related things, such as personal experience, incipient doubts, serious moral and religious questioning, the quickening of conscience, the looking for perfection and righteousness, high aspirations, and the whole outgo of the soul to the highest ideals. All will remember the lofty motto of their senior class in the high school, and the never to be repeated unique solemnity of the graduating valedictory. The most significant of all the ways in which the growing sense of individuality expresses itself is through that definite religious awakening known as conversion. This is the experience which unites the individual and God; it involves the thought of His being, the feeling of His presence, and the will to do His will. No description, however, is adequate to all cases, as their variations are multitudinous. It is a fact, which the psychologists [1] who have recently

[1] Cf. Hall, "Adolescence," Vol. II, ch. XIV.

entered the field of religion practically agree upon, that the curve of conversion is highest between fourteen and eighteen, the exact age of highest curvature being undetermined and also unimportant, and that two-thirds of the conversions occur before twenty. For a general description of what conversion, the most significant personal experience of middle adolescence, is, I will quote the pictorial words of James. He writes:

James on Conversion.

"Let us hereafter, in speaking of the hot place in a man's consciousness, the group of ideas to which he devotes himself, and from which he works, call it *the habitual centre of his personal energy*. It makes a great difference to a man whether one set of his ideas, or another, be the centre of his energy; and it makes a great difference, as regards any set of ideas which he may possess, whether they become central or remain peripheral in him. To say that a man is 'converted' means, in these terms, that religious ideas, previously peripheral in his consciousness, now take a central place, and that religious aims form the habitual centre of his energy." [1]

The Religious Training of Middle Adolescence.

What, then, is the religious training appropriate to middle adolescence? Manifestly the essential thing is the right guiding of the process of conversion. I refer to conversion as a process advisedly; whatever it may be for the hardened adult sinner, for the adolescent it should be a process, a normal and universal process. In all ages and nations the adolescent youth has assumed by some rite the duties of responsible

Guiding the Process of Conversion.

[1] James, "The Varieties of Religious Experience," p. 196.

living. He takes his place as a serious contributor to the best life of his tribe, his nation, his race, his fellow-beings. In conversion religion, in the comprehensiveness which moderns attach to it, gathers up the idea of pubic initiations among savage tribes, and assumptions of citizenship among civilized nations. It is an experience in the life of developing youth which society can neglect only at great risk. It is a process, however, in which no forcing should appear; imitation, suggestion, sympathy, and the use of natural opportunity are enough. When nature is opening the door of the soul, it is only necessary that we invite it forth. Only with the neglected, the wayward, or the old are exceptionally urgent means to be used, in which cases also exceptional phenomena may occur at conversion, like trances, visions, and voices. These are all not so much signs that God is present as that He has been absent.[1]

The religious training of the middle adolescence does not stop at conversion, — it is only well begun. The next and indispensable thing is something to do in the world for the church. Work attaches affections. The idle convert is in graver danger than the unconverted idle. To-day competing interests and organizations are winning away youths from the church, because the former give them occupation. The church is mature; it needs also to become adolescent, that is, to organize its young people, not primarily for personal growth in grace, but for practical social service. He saves his soul who loses it in self-forgetful deeds for others.

The Religious Value of Work.

[1] Cf. Davenport, "Primitive Traits in Religious Revivals."

Room for Individuality.

Withal, since this is the period of individuality, free place and play must be given for the development of individuality. Adolescent experiences must not be cast in adult moulds; the same spirit bestows a diversity of personal experiences. The church must make room for the adolescent truly converted, whatever enlargement in non-essential traditional positions this involves. In the interest of liberality we must always remember that every influx of new spiritual life in the growth of the church has meant a widening at some point of current views.

The Religion of Late Adolescence.

The religious development of late adolescence covers, so far as the school is concerned, college life. The students who go to college are those selected by society for her best investments. They are a choice company, and rapidly increasing in size, though still comparatively small. The high school is still the people's college. In the college the budding powers of youth, religious and all, come into their powers. The characteristic word of the religious life of college students is *independence*. It is the age of reason, of personal judgment, and of thinking for oneself. Though imitation and suggestion are potent influences, and groups, chums, clubs, and fraternities are comprehensive forces, still in the secret of his own consciousness the college man is thinking out things for himself. Individual variations are more noticeable, and independent intellectual positions are both stated and defended. Opposition is keen to all unreality in religion, to pious professions and empty forms. The

demand of independent reason is for reality, for reality in the conclusions of thought, the expressions of feeling, and the practice of principles. Life is becoming adjusted to reality in the large, to old and new knowledge, to vast natural processes and human undertakings, to the sweep of the world's movement in its unity. A natural part of these adjustments and readjustments is doubt, the feeling of uncertainty as to what the truth is. Atheistic tendencies and irreligious feelings, usually of temporary duration, appear, whose character is largely determined by home training and early environment. There is an element of truth in the saying that of German university students one-third go to the devil, one-third break down, and the remaining third govern Europe.

The Religious Training of Late Adolescence.

Religious Freedom.

The spirit of independence in college youth demands above all religious freedom. This is one of the gifts of the American nation to the nations of the world, it is one of the gifts of the American college to its students. Both of these are possible through God's gift of freedom to man. Freedom may be abused, souls may be lost, but it is elemental order of existence. The safeguards of freedom are instruction, sympathy, and love from those who bestow it. The college says to its students, be free, be men, God and your parents love you.

Widening of Religious Horizon.

The religious horizon of college men should be widened by a knowledge of the history of religion and of the church, by acquaintanceship with the religious values wrought out by the race from the beginning until now, and by a study of the religious experiences

of great men, like Paul, Augustine, Luther, Calvin, and Wesley. In their light they see light.

Practical Religion.

The presentation of religion to college men should always be in relation to some definite, concrete, and practical form of social upbuilding. Nothing less than the religious spirit of unselfish labor for the sake of the Kingdom has in it adequate social redemptive power. The problem of modern Christianity is to demonstrate its power to save society, as it has already demonstrated its power to save individuals. The college man will hear a practical call when an emotional appeal is without response. In keeping herewith, some active form of religious work is the great need of college life. Too often the preperception is given that only when they get out can they begin to do something. Do it now! We are not yet far enough away from academic cloistered mediævalism.

Doubts.

Concerning doubt among college men, the attitude of repression is vain. The doubter can no more cease doubting than he can cease thinking. Keep on thinking, and be patient with yourself meanwhile, are the first mottoes. Descartes is a wise teacher of many college youth, especially in his resolution that intellectual doubts should not disturb his moral way of life. The active work also forwards the student perplexed with doubts. Think them out, work them off, — these are appropriate modes of attack for the independent, practical college youth. In the latter part of a college course philosophy has its establishing word to say to those who, as Bacon said, drink deep of her fountains. The college teacher of philosophy may also

be guide and friend. The last year of a man's college course should end in a *Welt-Anschauung*, and his last college thesis in philosophy should be, "My Personal Philosophy of Life." It is his last chance, ten to one, to form for himself that system of thought under which he begins his life-work.

The One Thing.

The siftings of faith in college leave a man surer and stronger. The things that are left cannot be blown away. The non-essentials have gone, only that the essentials may remain. Among these essentials should be his firm resolution, supported by four years of unbroken habit, to do the will of God as revealed to him in Jesus Christ. This is the tie that binds him with a vast host of devoted souls to do the work of God in the world.

The Naturalness of Religion.

In the last analysis on this question we differ from each other not in having or not having religion, but in the kind of religion we have. It is one of the inalienable attributes of the human spirit, a universal phenomenon of man. For, as Carlyle in effect says, religion is whatever a man does practically believe concerning his vital relations to this mysterious universe.

The individual and typical development of religion through childhood and youth we have now followed, suggesting what seems the appropriate mode of training. The period of manhood we must omit, save for the general opening remarks, as our interests are centred mainly in the educational years. This we are the less reluctant to do, because if the child and the youth are successfully trained religiously, the man's

future may be safely trusted. But the problem of the religious education of children and youth is too large for the school alone, especially the American school, to solve; the great agencies of home and church must also be invoked. To the mutual services of home, school, and church, as they forward the interests of religious education, we next come.

Problems for Further Study

1. The Influence of Suggestion on the Age of Conversion.
2. The Future of the Religious Revival.
3. The New Evangelism.
4. The College Y. M. C. A.

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CHAPTER XXXI

RELIGIOUS EDUCATION IN THE HOME [1]

Our Questions.

WHAT is the value of the home as a social institution? What are the dangers that threaten the vitality of the American home? How may religious education conserve these values and remedy these dangers? These are our main questions. Upon their answers hang in part both the efficiency of religious education and the spiritual progress of the people.

The Value of the Home.

We have then to think first of the value of the home as a social institution. A series of considerations will serve to show us this value. To begin with, the home is the first in time of the great social institutions; first in the life of the individual, first in the life of the race. It is older than man's school, or occupation, or state, or church. Indeed these latter institutions are historically outgrowths of the home, and they can never escape the influence of their origin. To take one illustration of this historic development. In early Hebrew days the father of the home was, *ex officio*, the teacher, the lawgiver, and the priest. "And these words which I command thee this day, shall be upon thy heart; and thou shalt teach them diligently unto thy children, and shalt talk of them when thou sittest in

The First in Time.

[1] A brief outline of this discussion appears in the Proceedings of the Religious Education Association, 1904.

thy house, and when thou walkest by the way, and when thou liest down, and when thou risest up." The perpetuity of the Jewish race to-day, without a country, is due to this same Deuteronomic home. We must omit other examples of the beginnings of civilization in the home. Seeing that it is the first and the fount of all social organizations, we may accord to it also the rank of first in importance, and agree with Spurgeon when he said, "Home is the grandest of all institutions."

The Social Unit.

Second, the value of the home appears also in the consideration that it is the elementary unit of society. Only in impracticable Utopias, like Plato's Republic, has the home been surrendered. As Lady Mary Wortley Montagu observed, there are ultimately but two classes in society, men and women, and these twain are one flesh in every home. In the family is found the natural and minimal unit of the human race. The unit of society is not the individual, who receives and transmits his life from and to others — society is rather molecular than atomic in structure; nor is the unit of society the school, for it receives pupils from the home and keeps them but the maturing section of their lives; nor is it business, however engrossing, for from the home men go forth to work and to the home they return to rest; nor is it the state, Plato to the contrary, for to be a citizen presupposes the parent and the child; nor is it the church, as certain religious sects who have sacrificed the home, like the Shakers, and thereby come to grief, will illustrate. About the home as centre all the interests of man's life are organized; it is the central luminary about which its four planets,

school, vocation, state, and church, revolve; in it is found society reduced to its lowest terms; of all the social institutions it is the nearest to self-sufficiency.

The Centre of Man-making.

Third, in the home centre all the elements of man-making, viz. heredity, environment, and will. The home is the only institution that has legitimate control of the element of heredity, and heredity is the greatest third of a man's life. The home is but one of the many institutions that environ man, but, coming during the most susceptible years of childhood, its influence is prepotent. As to the element of will, the habits fashioned in youth in the home are regularly the garments of the soul's perduring life. If one principle of human destiny has more universality than another, it is this, the home makes the man. One might think of Lincoln as an exception, but Lincoln said, "All that I am or hope to be I owe to my mother." Control the influences of heredity, environment, and will in the home, and you all but control the man. The parents are the makers of a people. The teachers cannot without the home make a man; they can only develop the potential man that the home sends. The business world without the home cannot make a man; it only gives him an opportunity to declare what manner of man he is. The state without the home cannot make a man; it only returns his deed upon the doer. Nor can even the church without the home make a man; it only sends Heaven's appeal to his heart. These other agencies are indispensable indeed in modern society for man-making, but still they are secondary.

Fourth, the home is the temple of the love of

The Temple of Man's Love.

humanity, the sacred sanctuary of what Drummond famously called "the greatest thing in the world." The Apostle of love declares, "God is love. He that dwelleth in love dwelleth in God and He in him." The home, especially in its procreative function, concretes God's life in the world; it is a call to men to exercise divine gifts; it is a true Shekinah; it is a shelter of the Eternal in the heart of the temporal. Even when there is no room for God in the busy marts and inns of life, the home is still his dwelling-place. All love is of God. All the externals of life are laid aside in the home. Here, if at all, man meets God face to face. Marriage is a religious as well as civic rite. Destroy the sanctity of the home, substitute therefor the convenience or the pleasure of man, and that moral chaos ensues which betokens the departure of God. It is interesting to observe that all our names best descriptive of the ideal relationships of religion are home-names, — God is our Father, we are brethren one of another, and the whole race is one family. Long ago a lover of wisdom wrote, "Love is the eldest and noblest and mightiest of the gods, and the chiefest author and giver of happiness and virtue, in life and after death." [1]

The Main Agency of Moral and Religious Education.

Fifth, it does not surprise us after these things that the home should be considered the main agency of moral and religious education. And so it is, for it has the heart of the child. As no other institution does or can, the home has the heart of the child. Without it, let every institution combine to do its work, and the child is still an orphan, bereft, in heart and character,

[1] Plato, "Symposium," 180 A, Jowett Tr.

of a mother's love and a father's tender care. From the moral and religious life of the home the children pass into wider relationships carrying the same spirit; "from kith to kind" is the natural way. "It is not wonderful that the family has been regarded, as in moral education, the most indispensable of all instruments," writes the English author of a treatise on moral education.[1] Nothing less than this is also true of the service of the home to religious education, for the ideas and the deeds of the home mainly constitute our capacity for appreciating divine things.

These things then serve to show us the unsearchable value of the home as a social institution. Let us look first to our individual homes, whence with more profit we may turn to the homes of others. Our second question was, what are the dangers that threaten the vitality of the American home?

Dangers to the Home.

There are dangers threatening the home and they loom larger on the horizon than the size of a man's hand. Some of these dangers may not strike our individual homes directly, but they do indirectly so far as our sons and daughters under their influence lose the sense of value that attaches to the home. Let me enumerate a few of these obvious dangers.

Titles for Fortunes.

The American heiress and the foreign noble exchange a fortune and a title. The girl has money which she did not earn and wants a title which she has not. The noble has a title which, perhaps, he did not earn and wants a fortune which he has not. These two agree to

[1] MacCunn, "The Making of Character," p. 87.

supply each the other's want, and they become man and wife. Publicity is given the exchange, the minds of the youth are forced to consider wrong ideals of marriage, many other rich girls are made to stumble, and the holy estate of matrimony is brought into disrepute. It is slight tribute to the ability of the American rich to distinguish between the symbols and the substance of true nobility that foreign continental bureaus flourish whose aim is to send impoverished nobles to our country wife-hunting.

A Butt of Ridicule.

Again, home-life is being made ridiculous by the comic press and the pleasantry columns of the newspapers. There is humor that maketh glad the heart of man, there is wit that makes his face to shine, and there is satire and false cynicism that eat out the values of life. To laugh with the home is one thing, to laugh at it is another. A young generation is now being nourished on laughter at the home. They cannot thus bring to their own future homes a whole-hearted respect and devotion. Parents must have a care that nothing that defileth the home or the thought of the home should enter into the minds of youth, or entering, that its influence be offset.

Divorce.

Again, something that needs but bare mention here, for the public conscience is already being widely aroused to this danger, viz. the growing evil of divorce. What God has joined together men are putting asunder, and for other than the scriptural or justifiable ground. What constitutes justifiable ground other than the scriptural cause is a perplexing question too large for treatment here. But the present ease with which

divorce may be secured encourages hasty assumption of the marriage vows, increases infidelity thereto, tends to legitimize free love, makes children worse than orphans, and brings a divine ordinance into human contempt.

The Woman out of the Home.

Again the home is being too much forsaken by our women. Under no force of adverse circumstance, girls are leaving the home-roof to become independent wage-earners. Under no stress of personal necessity or social demand, our women are increasingly entering the professions. Instead of teaching their own sons at home how to vote, some are preferring to become voters themselves. Instead of the club existing for the home as it should, in some cases the home is existing for the club. In these respects some of our women are without justification escaping those limitations of the home which really condition their highest life; thus they leave undone those things which women alone can do, and attempt to do those things which men alone should do. Disguise it as she may, a woman's natural and ultimate satisfaction is found only in being the queen of the household. How much better for her to keep the springs of the water of life pure in the home than to attempt to filter its muddy currents in the streets! I speak here, of course, only concerning cases of preference; where necessity puts the woman out of the home the problem has merged with the wider general social problem.

The Man out of the Home.

But the man is the greater recreant. If the home is being too much forsaken by the woman, it is being too much neglected by the man. Some women do not

live up to their home privileges; most men do not. What is the situation? Necessity takes the father from the home the working hours of the day; and preference, too often, the remaining. To many American men, home is little else than the place where they sleep. The children are left to the care of the mother; the father goes hastily in the morning to the office, and in the evening, by appointment, to some meeting or the club. Business and masculine pleasures keep him too rushed to be a husband to his wife and a father to his children. The American home is not the least of the sufferers from the American haste and practical materialism.

Decay of Family Religion.

And all these dangers combined lead to the most ominous of all, viz. the decadence of family religion. At this point we touch our immediate subject and prepare the way for our last question. The father is no longer the teacher, nor the priest, nor even the lawgiver. Family worship is almost an extinct custom; everybody is aware of it but nothing seems to be arising in its stead. Children are growing up without knowledge of the Bible and unaccustomed to hearing the sound of their father's voice in prayer, or in the giving of thanks in the breaking of bread. Particularly is the lack of anything like definite and systematic religious instruction in the home to be deplored. Professor Coe has written, "There is reason to fear that most parents give utterly inadequate attention to religious training within the family. In the minds of many parents, too, there is uncertainty and confusion as to what should be done, or taught, or required, or expected." [1] The

[1] "Religion of a Mature Mind," p. 323.

religious spirit is not dead in home life, for it is universal and cannot die, but its old family forms are going, and new ones must be had to take their place.

These then are the dangers that threaten the American home and their consideration brings us to our third question, to religious education in the home as the safeguard of its inestimable values and the remedy for its grave dangers.

Religious Education in the Home our Safeguard and Remedy.

Religious education in the home is our safeguard and our remedy. Our message is to parents; theirs is the brunt of the problem. I propose religious education in the home as no cure-all alone, without need for help from the general uplifting forces of society, of the church in particular, but as the great thing needful to-day, without which other social and redemptive agencies are impeded in their work, and with which the home may be made the very nursery of civilization. I propose religious education, for, when true, it brings God our Saviour and Christ His Revealer into the thought and life of men, and no reality less than God is the ultimate solution of our human problems. And I propose religious education in the home, for the home is the most effective teacher of religion, and the home cannot justly, as it is to-day tempted to do, throw off this burden. This last point we must exemplify.

Religious Education an Unavoidable Duty of the Home.

The burden of religious education cannot be thrown by the home upon the public school, though the public school has its distinct duty to religion; these points will occupy us in the succeeding chapter.

The burden of religious education cannot be thrown

by the home upon the Sunday School. In its modern inception by Robert Raikes the Sunday School represents the best effort of the church to supplement that religious instruction which children were not sufficiently receiving in the home. The Sunday School movement has succeeded wonderfully in the work of religious instruction and represents one of the most beneficent social forces set free in the nineteenth century. The temptation is strong in the home to trust to the Sunday School entirely the work of religious instruction. In several respects, however, such trust is fatuous. Without home foundations, the Sunday School cannot avail. Even if it were effective alone, the time at the disposal of the Sunday School is not adequate for that systematic and continuous religious instruction needed by growing children. And it must always be remembered that the parent is the natural and most influential religious teacher of the child. The Sunday School must remain, as it began, to supplement, but it can never be trusted to supplant the home in religious instruction.

Nor can the burden of religious education be thrown by the home upon the pulpit. Without the background of the home, the pulpit can do but little. Let the pastor use his sermon for the teaching of religious truth, as well as for the proclamation of the gospel, never so well, and the people will remain largely in ignorance of Christian truth, for though they hear the word, they do not give it back again, without which there is no real learning. Pastors are often surprised at the inability of parishioners of many years' standing to state, and apparently to grasp, the simplest religious

truths. The teaching function of the ministry, and there is such, not to mention the heralding of good tidings, is effective on a large scale only when it can use, and does not have to supply, the results of home training. In the chapter following the next we must return to the service of the church in religious education. Meanwhile the American home must bear its own burden of religious education, however its burden may be shared by other educational agencies. How shall this burden be borne? We cannot go backward to good old things; we must go forward to better new things. What things?

The Forces of the Home.

It is our purpose now to enumerate a few of those forces which the modern Christian American home must represent. First and foremost it must represent an enlightened choice of life partners. The permanent happiness of the home and the rapidest improvement of the human race rest here. Heredity is the greatest single force in life. It represents the natural expression of the divine law of visiting the iniquities of the fathers unto the third and fourth generation and showing mercy unto thousands. Not a Platonic reorganization of human society, nor statute laws requiring physical examination for candidates for matrimony, but only the first founders of the home can utilize aright the foundational law of heredity. To be well born, that is the first thing. This truth parents must instil into the minds and hearts of their adolescent children.

Right Choice of Life Partners.

In the second place, the well-born child must grow up in a religious atmosphere in the home. As air fills

The Religious Atmosphere.

the lungs, so must religion the home. Children must breathe in the religious atmosphere every moment of every day. All home situations must be permeated by the sane and practical spirit of religion. The words spoken, the deeds done, as well as the prayers said, hymns sung, and Scriptures read, must be in the Spirit of God. The new religion in the home must be a new form of life. The sweet hour of prayer must become the sweet day of prayer, the formal hymn of praise must become the constant life of service, and the occasional Scripture reading must be annotated with the daily deed. Keep the old forms if we can and will, but the new life is imperative. Thus is provided a constant religious environment in which the good heredity may thrive.

Religious Instruction.

And third, the home must resume the work of definite religious instruction of children. The strength of the father and the tenderness of the mother must go into the work of imparting Christian truth. Best of all teachers can these two secure that the children assimilate religious truth with feelings and will as well as with intellect, that there be receptive hearts as well as minds, that souls grow in the light that they receive. One of the sacred purposes cherished by parenthood should be the definite and systematic religious instruction of childhood. The child is to be fed, to be clothed, to be sent to school, to be loved; he is also to be instructed in religion. Why will parents spend their money on their children for things that satisfy not, and withhold from them the religious culture that satisfieth? These earthly things we ought to do, and

not leave undone the heavenly things. Parents must incorporate into their conception of their duty to their children that of an adequate religious instruction. Children have the right to be brought up by their parents in the nurture and admonition of the Lord.

By these three ways will the home get possession of the influences of heredity, environment, and will for the good of children and in the interest of practical religion. For the parent reading these pages, in whom perhaps the resolution is shaping itself for a stricter following of religious duty in the home, questions at once arise concerning the content, method, and aim of religious instruction in the home, each of which we may briefly consider.

The Content of Religious Instruction in the Home.

What is the minimum content of the religious instruction parents should give their children? Not less than these few great things. The presence at all times of a Heavenly Father who loves children, who wants children to love Him, and who is grieved but not angered when they do wrong.

The sign of the real presence of the Heavenly Father in the conscious sense of right, in the natural love of truth, in all enjoyment of beautiful things, and in the pleasures of childhood.

The value of the life of children, or of any one, depends upon the loving of all those things that the Father loves, and growing daily into conformity with His will for us.

Our love to Him can best be shown by loving our brothers and sisters, our parents and relatives, our

friends and neighbors, our companions and playmates, and everybody everywhere.

The life among men approved unto God as worthy all acceptation and shewing forth the nature of God is Jesus, the lover and saviour of children and men.

And when a member of the household, or a friend, falls on sleep, the thought that these still live in another and larger room in the Father's house.

Thus simply and naturally may the great truths of the Christian religion, God, freedom, and immortality, the incarnation and the atonement, liberty, equality, and fraternity, grow into and out of the child's life in the home. Such simple great views of life as these a multitude of parents in the land, professing no Christian affiliation, might impart to their trusting children.

The Method of Religious Instruction in the Home.

What shall be the method of such nurture and admonition? Not less than these four things. First, each religious truth must be taught in a way suitable to the comprehension of the particular child. No one quite so well as a parent knows how children, even of the same family, differ from each other. The truth must be presented to each one according to his capacity to receive it. If this is done, if the child has really understood the religious idea, then, according to the principle of ideo-motor action, the truth will tend to act itself out spontaneously in word and deed.

Adjusted Ideas.

Religious Action.

Second, the child must do religious things, whether at first he understands their full import or not. As Pascal observed, *Il faut s'abêtir*. In the interest of the religious life of the child, better his doing one

religious deed than learning many religious truths. Flowers to the sick, dividing good things with others, surrendering one's toys to visitors, kindness to the aged, sympathy for an afflicted child, or even the more formal things of bowing in prayer, early church attendance where there are pretty windows, good music, and words for children in the sermon, abstinence from certain games on Sunday, — these motor responses in religious ways form the muscular habits which are the physical foundation of the higher life. Sensory impressions without motor responses are the sounding brass and the tinkling cymbal in all education, public and private, from Socrates who said that knowledge is virtue, from Cicero who said that to think is to live, even to the modern stuffing of the minds of children with information. There must be doing in addition to knowing, particularly children must learn to know religion by doing what it prompts.

Religious Literature.

Third, the home must be supplied with the best religious literature of human experience. Bible stories for young children, Bible history for older children, the lives of the saints, the confessions of St. Augustine, the history of the church, the growth of Christian missions, — all ending in simple apprehension of the essential elements of the Christian gospel. The home needs really a curriculum in religion for reading and study, under parental supervision and direction, in harmony with that provided by the Sunday School, and according to the growing interests of children. Not burdensome but delightful will the pursuit of such a curriculum prove, with parents as teachers and their children as pupils.

Religious Pattern.

And fourth, parents must be in all things lovely and of good report what they want their children to become. The boy in the end does as father does, not as father says. The mother's practice in the end, not her words, wins the girl. Social heredity is as real an influence as physical heredity. Imitation is the great law of growing life. Children must find the lives of parents another incarnation of the truth of God.

Religious ideas, religious action, religious literature, religious models, — these at least are essential methods in an adequate religious education of children in the home.

The Aim of Religious Education in the Home.

It remains only to refer to the aim of religious education in the home. It is practical; it is the cultivation of the habit of religion in life; it is to give the disposition of the child that acquaintanceship with religious life that later will control the man; it is the growth of children in God toward God. This aim we find in the realization of those words of Mr. Moody, "We might train them that they shall be converted so early they can't tell when they were converted;" or in those earlier words of Horace Bushnell, recovered to us by Professor Coe, "A child is to grow up a Christian and never know himself as being otherwise." Such an aim is to join with Jesus Christ in the enthronement of little children as religious beings when he spoke the words that emancipate childhood, "Suffer little children to come unto me, and forbid them not, for of such is the kingdom of heaven."

Thus, all told, will religious education in the home

become the guaranty of the value of the home as a social institution, and a remedy for its present imminent dangers. Begin now, parents, this happy and profitable labor; seize the chances, teachers and ministers, to deliver this message to parents. It will remain the message of the hour until it is heeded. In the words of Dr. Henry Ware, "To Adam, Paradise was home. To the good among his descendants, home is paradise."

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CHAPTER XXXII

RELIGIOUS EDUCATION IN THE PUBLIC SCHOOL

In touching this subject, a vein of negative attitude will appear for the first time in our discussions. This seems to me to be necessary at present in view of the conditions that confront us. Along with the negative attitude, however, I have defended certain positive positions which will, to a degree, I trust, atone for the always unwelcome element of polemics, and at the same time these positive positions seem to me the very best way of attaining the results which the people I oppose desire. After the preceding discussions, nobody will accuse me of indifference to the cause of religious education. But the zeal that defends the cause of religious education in America to-day must be discriminating and sympathetic, especially where the interests of our public school system are involved. The two questions I wish to discuss are religious teaching and the use of the Bible in the public schools.[1]

The first question is, Ought there to be any religious teaching in the public schools?

In introducing the discussion of this question, I wish

[1] Cf. my papers on these subjects, respectively in *Proceedings Religious Education Association*, 1904, *Biblical World*, January, 1906. Also my "Philosophy of Education," pp. 123–127.

to draw a distinction that really exists between "religious teaching" and religion. Religious teaching has for its object the knowledge on the part of the pupils of certain religious truths. Religion itself is a life in God. The one is formal and intellectual; the other is real and vital. It is possible to teach religious truths without being religious and without the pupils becoming religious. It is possible to be religious and to have one's pupils become religious without teaching religious truths. Those who favor religious teaching in the public schools may be favoring really nothing more than the intellectualizing of the religious experience of other persons. Those who oppose religious teaching in the public schools may be favoring really the healthy growth of unanalyzed religious sentiment in the pupils themselves. A Distinction.

With this distinction in mind, I wish to defend, as the answer to our question, this thesis: what the public schools under our form of government need is not teachers of religion, but religious teachers; is not religious instruction, but religious living; is not "religious teaching," but teaching religiously. Thesis.

This thesis, I am free to confess, is one to which I have come after having held, and actually advocated, the contradictory one that the public school curriculum should teach religion, with the Bible as the text. This latter proposition now seems to me insuperably difficult to practise. And I will attempt to state my reasons for change of front.

To show, first, our public schools do not need "reli-

The Historical Argument.

gious teaching." There is an historical reason. A nation must respect its history as men respect their parents. During the first half of the nineteenth century, when the religious sects began to multiply, the teaching of religion was taken out of the public schools. This was done that no religious sect might propagate its tenets through the school influence, that the birthright of liberty of conscience of Americans be not infringed, that the cause of a sound and various learning suffer not at the hands of denominationalism, and that society might have in its midst at least one unifying educative agency. These historical reasons are still potent today.

The Governmental Argument.

In the case of America there is a governmental reason for the absence of anything like religious instruction in our public schools. So far as this question is concerned, there are two principles supporting our form of government, viz. the separation of church and state, and the public education of all youth. To these two principles our government is committed by its successful, though as yet short, national life; upon them our national experience has put the seal of approval. Now, to introduce religious teaching into the public schools would contradict the principle of the separation of church and state. On the other hand, to deny the right to exist of schools that do not teach religion is to contradict the principle of public education for all American youth. These two principles are two of the pillars of state upholding America; to pull down either of them will precipitate a national disaster.

There is also a social reason. The democracy

would suffer by the attempt to teach religion in the public schools in that certain elements in society would at once withdraw their support from a government no longer religiously free. To-day the public school is the great preserver of that homogeneity in society necessary to a democracy. It would cease to be so the moment it began to teach religion. It would not subserve the best interests of the democracy for all Catholics to be withdrawn from the public schools and taught in the parochial schools. This would occur if any form of Protestantism were taught in the public schools, and justifiably so, for it is not right in a religiously free country to tax a Catholic father to teach his son Protestant doctrine. Neither would it be right to tax a Protestant father to teach his son some other form of Protestant doctrine than his own. Needless is it to refer to the attitude of the great unchurched elements in America. Under the stress of formal religious teaching, the public school could no longer preserve the unity of American society. Indeed, the public school system itself could survive only in weakened form, if at all, these disintegrating forces. A public school system can teach religion and survive only where there is a state religion to teach.

The Social Argument.

There is also a natural reason for not teaching religious truths in the public schools. There is no available text embodying the essential universal truths of religious experience. There is a physics, a chemistry, and a biology, a mathematics, a literature, and a history; but there is not similarly a theology. History is most like theology in presenting a variety of

The Natural Argument.

interpretations, but the interest of the public is not quick in the dissensions of historical opinion as in those of religious opinion. We have not, nor are we likely to have, an available text in religion. To reduce religion to its lowest terms and teach the residuum as religion will satisfy no religious man and no religious sect. To teach the religious truths of any sect is to dissatisfy naturally the others. Select any religious truth, or any body of religious truths that one will, attempt to teach it, and the majority of the community will not support you. Some of the majority will say, you are teaching too much; some of the majority will say, you are teaching too little. This is true of no other subject to the degree in which it is true of religion. In teaching religious truths the majority rule does not hold; there is no majority in the community that want any one religious system taught. But the public school is the servant of all. In the face of these difficulties I dare not name any body of religious teaching that can find a place in the public school.

The Religious Argument.

There is a religious reason, also. It is really in the interest of religion that many people are wanting the public school to teach religion. No one seems to be urging the teaching of religion on the ground of its educational value, though it has supreme educational value, nor on the ground that the curriculum needs further enrichment, nor on the ground that pupils are not sufficiently occupied. Nothing practically but an interest in promoting religion is at the basis of the demand for the teaching of religion in the public schools. Now, the public school can promote the interests of

religion in a more excellent way than by attempting to teach it, that is, by living it. Here we reach the second part of our thesis: our public schools simply need religious teachers.

The Religious Teacher the Solution.

There is no occasion to seek far for a definition of the religious teacher. We say enough when we say the religious teacher is one who is conscious of God in his work. Neither is there need of much argument to prove that a religious teacher would serve the interests of religion better in American public schools than a teacher of religion. Perhaps no observer of the effects of teaching religion in state schools in Germany and England would prefer to see those systems adopted in America; some such observers come away extremists, ready to exclude religious teaching from other institutions than the public school. The gist of the argument may be stated thus: religious teaching in state schools usually ends in secularizing religion; the religious teacher in state schools would tend to make all things sacred. In writing on religious teaching in the home and church, instead of in the public school, it is right to stress the necessity of combining the two, which is the ideal. Meanwhile, we may safely leave the interests of religion in the public schools in the keeping of religious teachers, simply urging upon school boards the duty, without applying any doctrinal tests whatever, of selecting those teachers whose lives convey the religious stimulus to the young lives about them. Where life thus gives life the religious touch it will not be necessary that lips teach the religious truth.

The Public School an Actual Religious Influence.

Far be it from me to imply that the public schools do not already have religious teachers. To call the public school system of America "godless" is as untrue as it is unkind; it is to repeat the very old mistake of identifying the letter with the spirit. On the contrary, the public school system is a tremendous religious influence in the life of the nation. It has not single-handed regenerated human society, as some of its critics have seemed to expect of it, but it has presented us with the spectacle of a consecrated body of men, and particularly women, unsurpassed during the centuries for genuine and unselfish social service. By its fruits, college presidents say,[1] it shows itself not inferior to private and church schools in developing worthy character. Despite his critics the public school teacher is not to think he is doing less than his duty because he is not teaching religion; his only care is that he teach religiously.

The Importance of Religion.

By two things may we steady ourselves for the religious performance of our schoolroom task. In the first place, the public school teacher, as every teacher of the world's youth, needs to recognize that religion is the most important element in human life. In religion man comes into relation with God, the most real Being. Nothing is so important to man as the right recognition of this relation. To enter fully into this relationship is to disclose the widest human possibilities, to open up the deepest springs of human nature, and to save the total individual and social life. In being religious, that is, in practising the presence of God in the work of

[1] *The Outlook*, Vol. 75, No. 11.

the schoolroom, the American teacher may feel that he is what his pupils ought to become.

The Universality of Religion.

In the second place, it strengthens the teacher to remember that he and his pupils alike are by nature religious. To seek the Great Companion, the Ideal Person, to feel at one with Him, to think His thoughts, — these are universal human aspirations. The youth of the land in whom the springs of life are welling up are unavoidably religious. Human nature is built on the religious basis. All nations and all normal men are religious, that is, are conscious of an Invisible Presence. Hence the teacher may be sure that if he lets his life show forth the Divine Presence, he will thereby quicken a response in the life of the pupil. In being religious at their work, American teachers may feel that, under the laws of imitation and social suggestion, their pupils will develop their religious natures.

General Conclusion concerning Religious Teaching in the Public School.

Thus is defended our thesis, not the teacher of religion but the religious teacher in the American public school. This thesis is not new; many others have been driven by the logic of the situation to a similar conclusion. In illustration let me quote the following words from Dr. Behrends, spoken over two decades ago, and defended by him on historical, patriotic, and moral grounds: "The main position I take then is that while religious teaching is not the business of the public school, the school is false to life, and thereby false to itself, if it is pervaded by the spirit of indifference or of hostility to religion. Implicitly, in tone, temper, and trend, though not explicitly, by the introduction of text-books and formal instruction, our public

schools should be definitely and positively religious and Christian." [1]

The Use of the Bible in the Public Schools.

The second question that was to occupy us is, What use may be made of the Bible in the public schools? As a matter of fact the usage is far from uniform in different states, or even in different communities of the same state, being governed largely by local sentiment. In the majority of states the usage is left to the discretion of the school authorities, the law saying nothing concerning it. The following summary [2] indicates the situation: "The Bible is read and the Lord's Prayer repeated very generally in the schools of Maine, New Hampshire, Vermont, Rhode Island, Connecticut, Pennsylvania, Delaware, Maryland, District of Columbia, Virginia, West Virginia, North and South Carolina, Florida, Kentucky, Tennessee, Alabama, Mississippi, Texas, Arkansas, Ohio, Indiana, Illinois, Michigan, Iowa, Wisconsin, Kansas, Nebraska, Montana, Wyoming, and Colorado.

"There are laws or rulings in the following states forbidding the exclusion of the Bible from schools: West Virginia, Georgia, Missouri, Indiana, Michigan, Iowa, North and South Dakota, and New York. In several states the law excuses pupils from taking part in religious exercises where the parents object.

"In a number of states Bible reading without sectarian instruction or any note or comment is provided for,

[1] "What Place, if Any, is Religion entitled to in our System of Public Education?" A paper read before the American Institute of Instruction, at Saratoga, July 13, 1882, by A. J. F. Behrends.

[2] *Texas School Journal*, March, 1903.

including Massachusetts, New Jersey, Wisconsin, Minnesota, and North and South Dakota. The decisions as to whether the reading of the Bible is sectarian instruction are neither clear nor consistent, and even in states where decisions have been made the question is left largely open.

"The use of the Bible in schools is prohibited, more or less positively, in Louisiana, California, Utah, Washington, Nevada, Idaho, and Oregon."

The Two Possible Uses.

First, let us distinguish between the two uses — and there are but two — for which the Bible is being advocated in the public schools. The Bible may be read in an opening religious exercise, without note or comment; this is the *devotional* use. Or it may form a basis of instruction for courses in (1) religion, (2) morals, (3) biblical literature, (4) biblical history; this is the *academic* use. Perhaps these four constitute the only academic uses for which the Bible has been urged, but for these four in various combinations the demands are many and insistent.

The Thesis.

Now the thesis I should like to defend is, the place of the Bible in the public schools is devotional, not academic. This thesis has both many advocates and many opponents. It is opposed alike by those loyal and zealous Christian people who want both the devotional and the academic use, by those who, in the interest of human culture, want at least the academic use, and by the extreme opponents who want neither. My answer to the opponents will be suggested in defence of the proposed thesis.

There are two parts to the thesis; positively, the Bible should have a devotional use in the public schools; negatively, it should not have an academic use.

Defence of the Devotional Use.

The Bible should have a devotional use in the public schools. This means to read it well in an opening religious exercise, preferably with the school responding, and to let it thus read be its own message of inspiration to the heart of the school. All religious-minded people whatsoever will appreciate the value of such a use. It introduces the sense of the eternal into things temporal, it nourishes the immanent spiritual life of the individual pupil and of the social whole, it transfigures human things with a divine light, and it makes souls strong in the confidence of a present God. Such a devotional use is not instruction in religious truth; it is the quickening of religious life. In a Christian democracy whose large majority believes that God is redeeming human society, the devotional reading in the public schools, where future citizens are making, of the Book that reveals His Nature and Presence is logical, equitable, and desirable.

A Present Need.

To unite American Christian people, of whatsoever faith and order, in the support of such use of the Bible in the public schools is a great and pressing present need, to serve which need minor differences may well be merged. To forward this unity, books of biblical selections for reading in schools are in preparation, whose simply religious nature, it is not too much to hope, will unite all, and offend none, of the bodies of Christian believers. Meanwhile, it would be gratifying to see the Douay Version used where the majority

of the pupils are Catholic, the King James Version where the majority are Protestant, and the Old Testament where the majority are Jews.

Objections Considered

To this devotional use of the Bible there are but two objections, viz. (1) a few states forbid it by law, and (2) it does not satisfy the various small, but audible, classes of freethinkers. In reply to the first, it is essential to recognize the great and, in our day, surpassing influence of public opinion. Once all the Christian voices are united in the cry, "The Bible for Devotion in the Schools," the laws can be unmade as easily as they were made.

The freethinker, also, is to be recognized in a Christian way. The devotional exercise in the public schools, not simply out of concession to him, but in keeping with the very genius of religion, will not be compulsory for children whose parents object. It will have only the support of the spirit made free by the Son. No freethinker can consistently object to a free religious exercise. In the maintenance of such an exercise, the Christian patrons must heartily coöperate with the school authorities.

This, then, is the positive part of our thesis, which would plant the simply religious life of the Bible in the very heart of the public school. Now for the second position, and perhaps the more difficult one to defend, though I feel convinced it is equally defensible. I should like to carry on with me the many who so far find themselves in practical agreement.

The Bible should not have an academic use in the

The Academic Use opposed.

public schools. That is, it should not be used as a basis for courses in instruction in literature, history, morals, or religion. My argument here will take this form: biblical literature, history, and morals cannot be truly taught without teaching religious truths, and American public schools ought not to undertake to teach religious truths. To take the subjects in order.

Biblical Literature.

Literature is great only when it is the vesture of great truths; it is debased and hollow when its forms engross attention to the exclusion of its content. The surpassing greatness of biblical literature is in its union of religious truth and outward expression. Therefore to teach biblical literature truly is to teach the religious truth it expresses. One can as little teach Richard III without reference to ambition as Job without reference to the presence of evil in righteous lives. This latter reference will be either formal, making literature an empty shell, or it will attempt to suggest the answer to the problem which the drama discusses, making literature real and vital. But the answer is a *religious* answer, and the religious sects disagree as to what that answer is, particularly when biblical scholars are inclined to eliminate the last chapters as not a part of the original solution. This is sufficient to indicate how real teaching of the Bible as literature will involve necessarily the teaching of religious truth as the teacher apprehends it, with all the consequent controversies with which religious history is filled.

Similarly, to teach biblical history will necessarily

lead to teaching religious truths; for biblical history is religious history. It is an unpractical abstraction to attempt to separate academic Israelitish history from religious Israelitish history. To omit Jehovah is to fail to explain Israel; to include Jehovah is to teach religious positions concerning which the sects of Judaism and Christianity are at great variance. Besides, there is an almost insuperable difficulty at present in making out the curriculum in biblical history. The great majority of Christian people and the modern scholars are not in agreement as to the sense in which the books of Moses, for example, are historical, or as to whether Daniel was a prophet. History.

The case is not different in teaching morals from the Bible. The biblical basis and sanction of morality is religion. Jehovah is there presented as the Author of the Decalogue. Modern ethical writers are practically agreed that religion is the basis of morals. To teach morals truly, then, is to teach religious truths concerning man's relation to God. Morals.

We reach this conclusion, then, that any academic use of the Bible whatever, short of superficial, necessitates the teaching of religious truths. Now, then, our issue is narrowed to the simple question, Why not teach religious truths? and as such is identical with our first question, which has already received a negative answer.

And our total conclusion is, for American public schools, not teachers of religion, but religious teachers, and not the academic, but the devotional, use of the Bible, — a conclusion which, in accord with both true Americanism and pure religion, excludes the killing Conclusions.

letter of religious teaching to make room for the free spirit of religious living.

Problems for Further Study.

1. The English Education Act.
2. The Disestablishment of the Church in France.
3. Effects of Religious Instruction in German Schools.

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CHAPTER XXXIII

RELIGIOUS EDUCATION IN THE CHURCH

A CAREFUL recent historian of education chronicles in his concluding chapter the following concerning religious education: "The complete secularization of schools has led to the complete exclusion of religious elements in public education, and the very general exclusion of the study or even the use of the Bible and all religious literature. Thus the material that a few generations ago furnished the sole content of elementary education is now entirely excluded and a problem of very great importance — that of religious education — is presented. Little or no attempt at solution is being made and little interest aroused. . . . One most important phase of education is left to the Church and the home, neither of which is doing much to meet the demand." [1]

Monroe quoted.

What the home and school should do toward the solution of this paramount and neglected problem we have now attempted to consider, and it remains to view the subject from the standpoint of the third of the institutions particularly responsible for religious education, viz. the church. It will give definiteness to our discussion to consider in succession, first, the principle upon which religious education in the church rests;

Outline of this Discussion.

[1] Monroe, "Text-Book in the History of Education," p. 750.

second, the educational agencies of the church; and third, some of these agencies in particular, especially the Sunday-school.

The Principle of Religious Education in the Church.

Religious education in the church goes back for its foundation to the principle that all religion in its organized work is, or ought to be, educational in character, that is, should include among the many different means it uses to reach its ends also the element of instruction, or instillation of ideas. This is not to identify religion with education; least of all to imagine that the religion of the educated is one thing and of the uneducated another. The principle simply affirms that in the bringing up of children and in the spread of religion through society the church must avail itself of educational means as a part of its work. If the principle is true, the church to-day is capable of considerable improvement in following its lead. That the principle is true, three reasons may be proposed, viz. the historical, the psychological, and the social.

Defence of the Principle.

Historically, the founder of Christianity was teacher as well as preacher, and the church throughout the ages, with varying emphasis, has insisted upon the element of religious instruction as a part of its effort in behalf of men. The ideas of Christ and the teaching of the church have been prepotent agencies in the advancement of the kingdom. The church has often been narrow in its attitude toward general and comprehensive learning, but that there should be learning in religious matters on the part of the young it has always maintained.

Psychologically, the instillation of ideas is necessary to provide nuclei about which religious feeling may gather and ends toward which religious practicality may aim. To eliminate right ideas from consciousness is to give free course to emotionalism and to make effortful activities aimless. The religiously taught individual has both support for feeling and ends for action.

Sociologically, the teaching function of the church is necessary to the fulfilment of the mission of the church. Most simply stated, this mission is to bring men individually and socially into that unity with God which Jesus enjoyed. Many things sometimes stated as the prime mission of the church are corollaries of this account of its function, such as, the right settlement of social problems, the unification of society in a grand interest comprehensive of their individual pursuits, the proclamation of the will of God, etc. In order to fulfil its mission and bring men into the sense of unity with God that Jesus enjoyed, a ministry of ideas on the part of the church is necessary. Ideas interpret to us the life of Jesus, ideas bear His message through the years, ideas bring His mind to men. It will go without saying that ideas are not a sufficient means wherewith the church may attain its goal, but it needs to be said that ideas are an essential part of any sufficient means. If numerous, broad, and generous ideas had been more prominent in the work of the church, there had been less dogmatism, intolerance, imitation, suggestion, and loss of individual self-control under revival influences. In view of these historical, psychological, and socio-

logical considerations, we may confidently expect increasing emphasis on the educational side of the work of the church, both in its new evangelism and in its social and missionary activities.

The Educational Agencies of the Church.

For improved religious education in the church there is hardly need of new educational agencies but only of a better use of existing ones. When we enumerate the existing educational agencies of the church, we may be surprised at their number and scope. Not that any one of these agencies exists solely for educational purposes, but that they each and all admit of being wisely used in the spread of information and ideas. They include first of all the pulpit, together with the church service and the silent influence of church interiors. Then the Sunday School, the educational agency of greatest opportunity that the church possesses. Then the mid-week meeting, the great unused privilege of the people for study and self-expression. Then the numerous young people's societies with their meetings and programmes. Then the libraries of church and Sunday School, so rapidly passing from a narrow pietistic to a general literary character. And the religious press, not second to any in moulding public opinion, one of whose publications at least should be a weekly visitant in every religious home. Private church schools, whose great need is to develop self-control in pupils so closely guarded. Denominational colleges, marching westward with American civilization, advancing and conserving human interests. Theological seminaries, whose curricula in one generation have become almost

as wide as human need. And, most instructive of all to home churches, mission schools and missionaries, who have learned the efficiency, indeed the necessity, of using educational means in presenting the gospel to other peoples. This vast array of instruments at the educational service of the church indicates that the organization is ample; what is needed is its utilization.

In the space of this chapter it is not possible for us to consider separately and in detail each of these agencies; rather I will select three from the list that appear to me particularly to need to have stressed their potential educational element, viz. the pulpit, the Sunday School, and the mid-week meeting.

The Educational Work of the Minister.

The head and heart of the educational work of the church is the minister. Sooner or later all the educational movements of his individual church are inspired and directed by him. In conference with his fellow-ministers the educational policy of his branch of the Christian church is determined. Within the circle of his immediate influence, his first business is to organize the educational work of his church in the interest of economy and efficiency. The work that is being done, and any new work to be inaugurated, must include the educational element for efficiency, but there must be no duplication. Like the president of a college, he has general supervision of his educational world. Further, in his individual work in the pulpit, the teaching function must appear both in matter and in manner; in matter something true and instructive provocative of meditation on the part of his congregation; in manner,

something for children and youth as well as for adults must appear in the sermon. He will probably find it better to have an educational element running through all his sermons than to give an occasional lecture or address in the endeavor to keep his people fairly abreast of the established religious thought of the day. Also he will probably find it better to remember children and young people in all his sermons rather than to have an occasional sermon for them. To preach an occasional sermon to children or young people is to lead them to suppose that the usual sermon is not for them. Occasionalism of any kind may make other times appear insipid by contrast. Again, it may fall to the lot of the minister, as the most capable man, to lead the weekly training class of the Sunday School teachers. In general the minister must be a dynamo of ideas to innervate and enlighten the life about him at every touch he gives it.

The Sunday School.

The Sunday School is the one institution in American life whose avowed purpose is to teach religious truth. Other institutions, like the home, do so incidentally; the Sunday School does so principally. Its idea is the union of the religion of the church with the teaching of the school. Its subject-matter is religion, this it takes from the church; its method is teaching, this it takes from the school. Of all subject-matters religion is both the most important and the worst taught; most important because it brings man into relation with the most real Being, worst taught perhaps both because least understood and requiring most from the teacher. The opportunity confronting the

Sunday School is unique among educational institutions, for it has it within its power to combine the best available methods with the most important subject-matter. For this reason this agency of religious education possessed by the church must receive our main consideration.

The Aim of the Sunday School.

What is the aim of the Sunday School? It has just been intimated that its aim is primarily educational. The normal development of the religious nature through teaching aright the truths of God, — this is the essential aim of the Sunday School. These truths are taught both to growing and to grown minds. Few are too young to begin to learn, none are too old to learn, the deep things of the Spirit. We need to get and keep it clearly in mind that this institution is really a school. Whether in future, for the sake of more dignified associations, its name is changed to the "Bible School," the "Church School," the "School of Religion," or retains its present time-honored form, a school it is and must remain. The sooner it adjusts itself to this primary educational aim, the better will be forwarded that religious education which is the duty of the church to provide for young and old alike. In this day of transition from old to new forms of faith, it is imperative that the rising generation, through information, instruction, and study, acquire definite religious ideas. Otherwise the thought element in religion will be absent a generation hence. The might of this institution is as that of a sleeping giant.

Secondary Aims.

There are certain genuine though secondary aims of the Sunday School that should not be put forward to

the first place, and whose fulfilment will come naturally as the school hews to its main line of broad religious education. To the educational aim, the catechetical aim of securing *memoriter* answers to set questions is secondary; the teacher is not a catechist. Children need to memorize more Scripture than they do, but the predominant presence of this secondary aim has alienated the sympathy of many an adolescent, particularly if he were attending the day school with its vital methods at the same time. To the educational aim, the homiletical aim of giving sermonettes to the class is secondary; the teacher is not a preacher. The predominant presence of this aim is particularly distasteful to those minds, and they are legion, whose response is greater as the presentation of duty is indirect and suggestive. To the educational aim, even the evangelistic aim of conversion is secondary; the teacher is not a revivalist. "Decision Day" is well, but it must come as the shooting up of the blade, not as the plucking up of roots. It were better named "Fruition Day." In attaining its primary aim of normal religious development through broad instruction in righteousness, conversion is secured by the Sunday School as the significant middle stage of growth whose first stage is found in childhood and whose last stage crowns maturity.

The Needs of the Sunday School.

To realize adequately its broad educational aim, the Sunday School stands in vital need of a number of things. These things constitute the ideal toward which we work; their absence at present is not an excuse for despair, nor even ground for discouragement, but a stimulus to labor.

The first is the need just hinted at above, viz. the recognition that a child has, or may have, a genuine religious life of its own, which needs not so much to be given to him as developed within him. The Religion of Children to be Recognized.

The second is a threefold need that follows as an application of the psychological doctrine of apperception to the Sunday School, viz. grade the pupils, grade the lessons, and grade the teachers. The grading of pupils is their grouping not so much according to size and age as the stage of their individual religious development. The grading of lessons is the adjustment of material taught to the stage of development of the class to be taught, and should at least include the four divisions of kindergarten, elementary, secondary, and adult. The grading of teachers, or of the method of teaching, is to secure a just regard in presenting the lesson for the capacity of the class to comprehend. Grading.

The third need is an adequate curriculum; to include in addition to a systematic presentation of the Bible, courses in Hebrew and Jewish history; the times of Jesus; the biographies of the church fathers, saints, and martyrs; church history; the history of doctrine; the growth of missions; ethics; and the religions of the world. Only on some such broad foundation in knowledge as this, can the church meet its obligation to educate the people in religion. The church is no temporary institution; religion is no evanescent phenomenon; both belong with the verities; even a superficial view of them requires both books and years. Suitable books covering these subjects need to be written by scholars, and then carefully mastered by teachers. An Adequate Curriculum.

Working Teachers.

The fourth need is a company of teachers who are willing to work and a leader for them. As already suggested, the pastor may have to lead, and direct, and conduct the teachers' meeting. If there be but one person in the midst whom the spirit of truth leads, the whole accomplishment is easy. Once the zeal of discovery of the greatest things flashes from heart to heart, quickly there is a body of equipped and ready teachers, the dearest element of whose reward is that they are rendering a free service.

Adequate Time.

The fifth need is adequate time for instruction in the Sunday School. This question it is now necessary to face seriously. Half an hour a week on Sunday is ridiculously insufficient for such great tasks. It will not do to take time allotted to the five busy days of the public school, which has neither spare time nor unimportant subjects. Perhaps we shall soon decide that the opening and closing exercises of the school occupy an amount of time beyond their due in comparison with the teaching period. Perhaps we shall in time decide to ask the parents to send their children to the churches Saturday forenoon for religious instruction.

Improved Discipline.

And a sixth need, felt by many officers and teachers of the Sunday School, is an improvement in discipline. The problem here is similar to the one in the public school, and some of the following observations are applicable to both.[1]

What is discipline? It is the art of securing and

[1] The remarks on discipline were my contribution, with some changes, to a symposium on the subject in *The Pilgrim Teacher*, March, 1904.

maintaining order. In its first intent discipline is treatment suited to a disciple. Under discipline the scholar becomes the disciple of the school of which he is a member. In becoming a member he implicitly assumes the obligation to respect the laws of the school. Only through obedience to those laws can the school maintain itself, and so only can the pupil justify his continuance in the school. The art of discipline implies thus the removal of bad motives and habits leading to disobedience and the substitution of good motives and habits leading to obedience to the school's economy. Manifestly, discipline dealing with the motives to conduct stands second in importance only to the teaching function of the Sunday School.

Nature of Discipline.

What is the purpose of discipline in the Sunday School? It is threefold. First, to secure that quiet and orderly procedure in the movement of the whole school that permits good and effective work on the part of all. Second, to develop that respect for righteous authority, without which the all-preserving habit of obedience to law is impossible. And third, to cultivate that power of self-control which keeps the individual true and character strong in solitude and in society.

Purpose of Discipline.

How may the discipline of our Sunday Schools be improved?

First. Every school ought to move according to a definite, continuous, though flexible order of exercises, which gives ample time to all essentails, while expressly excluding time-consuming, patience-destroying non-essentials, like reminiscences from visitors.

Suggestions for improving Discipline.

Second. Through proper contrasts between song,

recital of lessons, orderly movement of classes, and quiet thought, every pupil should be kept continuously and happily occupied.

Third. The system of prizes and penalties, undesirable necessities in dealing with all young life, should appeal only to permanent, and not to passing, human motives. A prize should be a surprise, and not an incentive. It should emphasize the pleasure consequent upon faithful work, and not be the end to which work is the means. A penalty is not the teacher's infliction but the return of the deed on the doer. The Sunday School needs to adopt toward the unruly a more stringent attitude of private appeal, private reprimand, probation and, all these failing, final dropping from the company of disciples, as Jesus at last sent Judas away. Dr. Blackall said at the Chicago Convention of the Religious Education Association: "A sentimental notion prevails too generally that a disturber of the school must be retained and his evil deeds tolerated or condoned at all hazards, in the hope of his ultimate reclamation. The vital interests of the nine, or even of the ninety-and-nine, are often sacrificed for the good that may be gained to the one who is in fault. In no other department of moral or religious or secular effort is such a course pursued."

Fourth. Teachers should be selected, so far as possible, who have managing as well as teaching qualities. Among the good managing qualities of teachers may be mentioned tact, common sense, skill and attractive physical presence, the Socratic art of questioning, sympathy, and self-command.

The Mid-week Meeting.

From the long list of educational agencies of the church let me select one more for special, though brief, mention, viz. the mid-week meeting. The customary slow dying rate of these meetings can be quickened to a living pace, and in a few churches this has been done, through right adjustment to the communities in which they are held. These meetings are the great and unused opportunity for religious people to express themselves. Any religious community is doing some religious thinking; any community whatsoever has its mid-week religious needs. These meetings should have the twofold purpose of satisfying religious needs for prayer, meditation, and song, and of providing the medium of expression for religious information, ideas, and experience. This latter purpose is truly educational in character.

In order for the educational part of the purpose of the meeting to be attained, several things are necessary. The meeting is to bring to self-expression the people rather than the pastor. Its programmes on pertinent religious topics must be definitely planned in advance. The persons to speak must be selected sufficiently in advance of the meeting to allow for special preparation. The meeting should be held in a comfortable and attractive place, and should be short, preferably within an hour. Confessions of personal faith on the living topics of religious thought will bless both those who speak and those who hear. People will come to these meetings when they want to come; and they will want to come when they get something. Through such sharing of religious thought and experience religious

people will educate each other in the great things of God.

The story of religious education in the church cannot be all told. By selecting for special mention the three conspicuous examples considered above, I have tried to emphasize the place of education in the church. As Professor Coe puts it, "Education in religion must be the chief means of saving the world." [1] Those who think he has made his statement too strong must ponder those older words, "Go ye into all the world and preach the gospel to every creature, teaching them to observe all things whatsoever I have commanded you."

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[1] Coe, "Education in Religion and Morals," p. 395.

CHAPTER XXXIV

THE TEXT-BOOK OF RELIGIOUS EDUCATION

THERE will be no doubt in any reader's mind as to what this text-book is. Not that there are no other texts in religious education, for religious education must draw inspiration and seek instruction from the history of the church, the history of missions, ethics, practical sociology, and other sources. But the text without equal for religious education, the inspirational centre of all other studies that develop the religious nature of man, is and will remain the Christian's Bible.

The Purpose of the Discussion.

It is both tempting and easy in discussing such a familiar and important theme to multiply the weighty opinions of the great in descriptive eulogy of what the Bible means for present and future man. These commendations, however, would not serve our specific purpose of showing the adaptability of the Bible to the needs of religious education. Unless our purpose was thus specific, there would be no excuse for one writing on this theme who brings no more special scholarship to it than does the present writer.

Outline of the Discussion.

Four points will serve to outline our discussion: certain sources of general interest in the Bible, its characteristics as literature, certain sources of special interest in the Bible, and its characteristics as

"a pedagogical masterpiece." The first point is introductory to the main theme, viz. the adaptability of the Bible to the purposes of religious education.

Sources of General Interest in the Bible.

There are three sources of general interest in the English Bible: it is a model of English prose, it contains indispensable culture material, and it tells us about Jesus of Nazareth. The Bible is a model of English

Model of Style.

prose. Its potent influence may be traced on men of letters and statesmen like Ruskin, Gladstone, Webster, Lincoln, and Reed. The orations of Moses are comparable to any that Demosthenes or Cicero can show. Those who know best are most ready to tell us that the King James Version is our best English. Mr. Edmund Gosse writes to the London Bible Society: —

"It would be impertinent for me to praise the English Bible, and needless to dwell upon its value as a model of noble language. But since you offer me this opportunity, I should like to insist on the importance to those who are ambitious to write well of reading the Bible aloud. It is a book the beauty of which appeals largely to the ear. By one of those almost miraculous chances which attended upon the birth of this incomparable version, each different part of it seems to have fallen to a man appropriately endowed for that fragment of the task. The gospels, for instance, vibrate with the tender and thrilling melody of stringed instruments; in the narrations of the Old Testament and in the Psalms we find a wider orchestra, and the silver trumpet predominates. When young men, therefore, ask me for advice in the formation of a prose style, I

have no counsel for them except this: read aloud a portion of the Old and another of the New Testament as often as you possibly can."

Culture. Again, the Bible contains indispensable material for purposes of general culture. Without a knowledge of its contents, the reader of the English poets, from Chaucer to Browning, finds them partially unintelligible. The same is true of the American poets. The lawyer of culture must know Moses as well as Blackstone. The teacher of culture must learn from Jesus as well as Socrates. The man of culture must know something of the men of Israel, beginning with Amos, who framed for the race the conception of a moral Governor of the universe, a conception without which neither a monotheistic religion nor a philosophy of history is possible. The best of modern scholarship goes into the study of the Bible and the things connected with it even remotely, while concerning it more volumes appear than on any other of our great classical literatures. President Hall observes, "No race ever flourished without its classics or Bible, as the pabulum for its higher humanistic life."

Jesus. And, again, the Bible contains the source material of the life of Jesus, the central figure of our world from any point of view. More people to-day trust in the name of Jesus for personal and social salvation than in any other; in a broad sense of the term, Christians number about one-third of the population of the globe. Upon the life and death of Jesus is founded the religion of the West, the religion of the nations holding the balance of power in our little world. An abstract intelligence,

devoid of interest in the welfare of man, and without a heart, but with the eyes of the understanding opened, would desire to look into the book chronicling the events in the life of Jesus.

These three things, then, its English, its culture value, and its record of Jesus, are sources of our general interest in the Bible. There are countless others, but these are enough to prevent the Bible ever being neglected by those who love the best things, and we rehearse together these commonplaces of our thought because they have such uncommon values.

The Characteristics of the Bible as Literature.

The Bible is not so much a book as a collection of books, a literature. Its characteristics as literature include, among many others, at least the four following: comprehensiveness, excellence, power, and permanence. The comprehensiveness of biblical literature is shown by the period of time its composition covers, from almost a thousand years B.C. to about a hundred years A.D. No other single Western literature has had such a long development. Its comprehensiveness as literature is also shown by the fact that it includes models of practically all the known forms of literature, except, as some one has observed, the modern newspaper editorial. Here are poetry and prose; the lyric, the drama, the epic; the proverb, the story, the parable, the oration, the epistle, biography, and prayer; also war-songs, laments, and enigmas. The literary activity of no other race has surpassed in variety that of Israel.

Comprehensiveness.

Excellence.

A number of qualities combine to indicate the ex-

cellence of this literature. It has naturalness, simplicity, touches of realism, love of nature, and an invigorating moral tone. It combines a practical optimism with a high idealism. It recognizes the evil in men as they are and depicts the good they ought to realize. All the moods of the human soul are here reflected, its darker doubt and despair and pessimism as well as its brighter hope and joy and peace. And through all the changes of time the faith of the biblical writers ventures to affirm a supreme and good Will enacting its larger purposes.

Power.

Using the distinction made famous by De Quincey, this is a literature of power rather than information. It is neither a history nor a science, but a religious experience. One is truest to its spirit, not when he argues concerning its inspiration, but when he is inspired by it to noble service. It calls men not to argumentation, but to action. For this reason it has wrought itself, not only into the individual, but also into the social and national life. In an address before the Long Island Bible Society in 1901, Theodore Roosevelt, then Vice-President, used this language: "Every thinking man, when he thinks, realizes, what a very large number of people tend to forget, that the teachings of the Bible are so interwoven and entwined with our whole civic and social life that it would be literally — I do not mean figuratively, I mean literally — impossible for us to figure to ourselves what that life would be if these teachings were removed. We would lose almost all the standards by which we now judge both public and private morals; all the standards toward which we,

with more or less of resolution, strive to raise ourselves."

Permanence.

The literature of the Bible has the quality of permanence. This is because of the good news for man it conveys. Already it is the personal book of more souls than any other, and is read in more tongues than any other. Recording the highest reach of religious experience in Jesus, the Bible is bound up with all the future religious progress of the race. Its evangel, too, is carried by a literary form that stands the test of all literature that abides, viz. universal appreciation. These four, then, its comprehensiveness, excellence, power, and permanence, serve to indicate the characteristics of the Bible as literature.

Sources of Special Interest in the Bible.

Approaching still nearer our subject, we come to consider certain sources of special interest in the Bible. Thinking of the stages in the development of the individual, we find the Bible makes a unique appeal to each stage. It is the book of children, of youth, and of men. We will consider each of these three stages separately and in succession.

The Child's Book.

The Bible is the child's book. For in it are children, and talking animals, and moving narration, and dramatic action, and vivid imagination. In it, too, is the story, the best vehicle of truth for the mind of children. Here are the lad Isaac, the boy Joseph, the young David, and the child Jesus; here are Miriam and the Syrian maid; stories whose beauty and simplicity will never cease to attract, even to the thousandth repetition, so long as the world retains its youth and remembers

its children. The Bible puts the child where Jesus did, in the midst of apostles of God. The problem is all one of selection; only give the Bible a chance to attract children through its children and you will not have to prescribe its reading. Let the Bible stand in the child's mind as a privilege, not a compulsion; and I beg of you not to require the memorizing of its difficult passages as a penalty, according to an old custom. Even children of older growth do not love their punishments. It is a sad comment upon our inability to tell Bible stories and our lack of biographical study in the Sunday-school that very few of the children we know between eleven and thirteen years of age will select biblical characters as their ideals.

The Youth's Book.

The Bible is the youth's book. For in it are youths, and aspirations after ideals, and friendships, and heroism, and doubt, and love. In the Bible are aspirations after ideals; here are Abraham, Jacob, Joseph, Daniel, Jesus, Paul, and John, names belonging on any list of the world's idealists. In it are friendships, wonderful friendships, such as Enoch and Jehovah, David and Jonathan, Jesus and John, Paul and Timothy, Christ and the church; here, also, are Ruth and Naomi. In it are heroes, typical heroes of various kinds, like Moses, Samson, Daniel, and Jesus; and heroines, like Esther, and Lydia, and the beautiful young mother of Jesus. In it, too, are doubters, grave doubters, like Job, Ecclesiastes, and Thomas. Doubt is natural to thinking youths. They must experience the truths of the great world of religion for themselves. The accumulated experience of the race in the forms of faith and doc-

trines they cannot entirely assimilate and some of it is cast off. The doubter is not to be told to quit doubting. He is to be told to go on thinking, to be patient with himself, and especially to get acquainted with Job, the Preacher, and the doubting disciple. And, above all, the doubter must catch the biblical spirit of work, of learning the doctrine through doing the will. Self-forgetful work is the sunburst that scatters the mists of doubt. The Bible is the book for youth, too, because it is the book of love. The grand central theme is love, love of God for man, love of man for God and men. From Eden to Noah, to Moses, to Hosea, to Jesus, to John, it is all God saving the world by love, by a love that never fails, by a love that grieves when man hates, by an unangered love that suffers when man sins, by a free love that forgives when man repents, by a love that saves when man loves, — the Bible is the book of love. Jesus is the highest type of hero who overcomes the world through a suffering love. The Bible is the youth's own book, for in it, in short, is that self-revelation which all adolescence seeks.

The Man's Book.

The Bible is the man's book. For in it are noble men and women who in the burden and heat of the day brought things to pass, who were the agents in the never ending creation of a new order. Here are the patriarchs, the judges, the kings, the prophets, the Saviour, the apostles, and a great multitude of men and women, all of whom the vision of youth attended on the dusty highways of mature labor and service. The Bible is the book of the burden-bearer for the burden-bearer. It calls mature men and women

to work to-day in the name of the world's great workers.

And for the years as they bring the philosophic mind and the natural cessation from the day's work, here is the wisdom of Solomon, the systematic thought of Paul, and the truth as it is in Jesus. For the descent of life there are also companions to be found in the figure of the aged Jacob blessing his sons, of the old hero Moses with undimmed eyes set toward the promised land, and of stalwart young Timothy's grandmother, Lois. And there is the comfort of Christ.

From childhood to childhood again the blessings of the Book are over all. The twenty-third Psalm is for children who have seen a shepherd tending his sheep and for the aged who are passing through the valley of deep darkness. The meaning of the great passages grows as we grow, and their deepest meaning is still beyond us. No man to-day has grown into the realization of sonship with the Father which Jesus had, or even into the fellowship with Jesus which Paul had. There is thus something in the Bible for all; you, whoever you be, are in its pages; to each reader it may become thus a personal book. In adjusting it to the needs of those whose religious nature is being developed, the problem is essentially one of selection. The philosopher Paulsen has expressed what the learned scholars as well as the common people feel when he writes, "Whoever appreciates simplicity and truth, grandeur and sublimity, must surely find pleasure and consolation in the Sacred Scriptures."[1] Those unique appeals the

[1] Paulsen, "Introduction to Philosophy," p. 335, Thilly Tr.

Bible makes to each stage in religious development are, then, the sources of our special interest in the Bible.

The Bible as "a Pedagogical Masterpiece."

From these considerations we are led naturally to the last, viz. the characteristics of the Bible as "a pedagogical masterpiece," as President Hall calls it. From the many characteristics that might be enumerated to justify the description, let us select to consider only the following four; its principle of growth, its vitality, its racial quality, its spirit.

Growth.

The Bible contains the principle of growth. This is the reason it can provide for the growth of man from childhood to age, as just seen. The Bible grows with the child as he grows. This principle receives distinct expression in Jesus, who likens the kingdom to hidden leaven, and looks first for the blade, then the ear, then the full corn in the ear. The truth it contains is unfolded as a growing revelation. And in the main the books as they are arranged stand in correct pedagogical order, the earlier parts of the Old Testament for the child, the prophecies and the gospels for youth, and the epistles of Paul for maturity. Perhaps the only considerable change needed would be to carry forward the wisdom literature of the Old Testament to stand with Paul's letters. After what has already been said it will not be necessary to name the characteristics of each part of the Bible thus divided that adapt it to its special use. It is sufficient only to recognize that in keeping with all the demands of modern pedagogy for development, the Bible incorporates the principle of growth. It is not necessary to raise the question whether

we can outgrow the Bible. The question will not be pertinent until the highest biblical standards prevail. Though we affirm the principle of a growing and continuous revelation through all the ages down to the present, we still confess that the spiritual truths in the Bible that humanity at large has not yet seen are perhaps greater than those it knows, for we are not yet spiritually grown, and Jesus is still a partial enigma to us.

Vitality.

A second pedagogical characteristic of the Bible is its vitality. Its subject is religion, and it has the vital touch at every point. Here is reality in the religious life. The Bible reports religious life in the act; it is not about religion, like theology; it is religion expressing itself. The Bible differs from theology as the stories of Uncle Remus differ from scientific folk-lore. Compare the Psalms, for example, with any of Schaff's "creeds of Christendom"; they pulsate with fervent life, these are dry bones. Theologies and philosophies of religion are necessary for all thinking minds, but they cannot be found in the Bible. The authors of its books had an experience of God which our record expresses; they were not interpreting the religious experience of others, they were expressing with the authority of personal experience what they had themselves felt. They summon us primarily to join them, and only secondarily, if at all, to explain them. The carrying power of the biblical compositions is due to the expression through them of the personality of their authors. The teacher of the Bible needs primarily, not learning and scholarship, though these are great aids,

but the sense of appreciation of the animating spirit of the author studied or incident recorded, together with aptness at communicating it.

Racial.

Again, the Bible is a racial product. Modern pedagogy is saying it takes a race to educate a child. The Bible is a race in religion expressing its development. A child nourished on this racial product becomes a partaker of a racial religious life. He is truly educated in religion. The Bible was not made by a pedagogical expert for teaching purposes; it grew; therefore it is a pedagogical masterpiece. The Bible speaks on religion with ages of truth-seeking behind it. Centuries of struggle after God are here uttering their secrets. The religion of that individual race most gifted among the races of the world in the genius for religion became in Jesus and Paul universal in its outlook and sweep. To follow this development in one's own personal experience is to come into completest unity with the life of God and man. "We have, in fact, only begun to guess the possible value of the Bible as an instrument of religious education." [1]

Spiritual.

And lastly, in a truer sense than any theory of literal or verbal inspiration has ever held, the Bible is the work of the spirit of God in the soul of man. Here are the men who have both heard and hearkened to the divine voice, who have both felt and followed the drawing of the Father. Not in an external and mechanical, but in an internal and real sense, Scripture is given by inspiration of God. The belief in the omnipresence of God demands that He be found in the thoughts, feel-

[1] Coe, "Education in Religion and Morals," p. 393.

ings, and deeds of true men. In proportion to their insight, they express His nature truly. Inspiration is not dictation, nor guidance of the pen; it is man's experience of God narrating itself. Its quality varies with the individuality of the writer or speaker. The words of Jesus give us our deepest insight into the character of God; their inspirational quality is supreme. The imprecatory Psalms Christ did not quote; few Christians would care to pray them; their inspirational quality is slight. The law of retaliation in the Levitical legislation Jesus did quote, only expressly to set it aside in favor of the attitude of love toward enemies. Thus is illustrated how the spirit of God, working in the hearts of all men, is limited in its work by the inability of each man. It is not necessary at this point, though it would be interesting, to compare the inspirational quality of the Bible as a whole with that of other sacred literature. Sufficient has been said to indicate the fact and the nature of the fact that our Scriptures are the work of the Divine Pedagogos, as Clement of Alexandria used to call the Holy Spirit. This Spirit is able to lead to the true teacher of us all, God, the little children and youth and men and women who take it confidingly by the hand.

The Prospect.

Thus we have noted the developmental, vital, racial, and spiritual qualities that characterize the Bible as our supreme curriculum in religious education. Something has been intimated of its undiscovered resources and its unapplied material. We need not be afraid of modern critical scholarship. We may expect most of

our ideas about the Bible to change, for we are very ignorant concerning it. What will not change is the sense of the presence of God in human experience to which it witnesses, and which, after all, is the essential thing. Rather when the negative trend of the higher criticism is spent, that is, when our grosser ignorance is removed and when the positive fruits of the movement begin to appear, as appearing they already are to some extent, we shall find that the Bible has suffered nothing from the hands of literary and historical science; rather that the more we know of its origin, preservation, literary form, and significance to its own authors, the greater and the deeper becomes its spiritual effect. For example, Jacob and Esau are greater as Israel and Edom than as individuals, as a society is larger than one of its members. When the Bible is thus through modern study fully recovered to us, when a large body of intelligent and devoted teachers carry to the rising generation the real old Bible, that is, the Bible as it was to its own people, will not its teaching give us in time the greater education and the greater man?

So at least thinks President Hall, with whose suggestive outlook we seem to catch glimpses of the future. "It is . . . our great good fortune," he says, "to live in an age when our Bible is being slowly revealed as the best utterance and reflex of the nature and needs of the soul of man, as his great text-book in psychology, dealing with him as a whole, body, mind, heart, and will, and all in the largest and deepest relation to nature and to his fellow-man, which has been so misunderstood

simply because it was so deeply divine. Now that its study is not confined to the Sunday-school and pulpit, but archæology, philosophy, comparative religion, criticism, and anthropology have shown it, part by part, myth, history, prophecy, song, and, above all, Christology, which is the heart of all, in a new and majestic light, there is a new hope that when all these studies have done their work and their results are duly certified and organized, we shall at last be able to minister to the religious needs of academic adolescence in a way that opens the door to a higher type of education and of man." [1]

General Status of Religious Education.

Herewith our investigation of religious education must conclude. It is a vast topic, to which American educators are beginning to awaken. The territory is mostly virgin, the ground is hardly broken, few divisions have been staked out, and only a guide-book or two have appeared. Many scattering papers exist, few monographs, very few volumes. Every modern science, especially psychology, has a great deal that ought to be said upon it. In America we may confidently expect a growing appreciation of the unity of religious and general education, and a quickened endeavor to meet educationally, as otherwise, existing religious need.

Summary of Religious Education.

The preceding discussions may have led us to feel that our world is such that God may be met anywhere. Among the reputed sayings of Jesus are, "Lift the stone, and there am I; cleave the wood, and there shalt thou find me." "Hast thou seen thy brother? Then

[1] G. S. Hall, "Adolescence," Vol. II, p. 321.

hast thou seen God." Companionship with God is an omnipresent privilege. This companionship should begin in childhood, grow in youth, and continue through manhood. It should consciously begin in the home, be unconsciously felt in the school, and come to fruition in the church. Apart from truly religious souls, the greatest guide into the fulness of such companionship is the Hebrew and Christian Scriptures. And the purpose of all religious education is not to take men up from earth to heaven, but to bring down heaven to men upon earth, not to fit us for eternal life not yet begun, but to make us realize the eternity of the present life. Life can never be other than now. We cannot fly away to God, we cannot fly away from God.

Summary of the Principles of Education.

Herewith our whole investigation, already too long I fear, into the principles of education must end. We have found that, though mostly guesswork to-day, the educating of man has in it the potentiality of scientific, though general and inexact, procedure. Unless the preceding pages have shown this, more words were futile now. Ideal education must be physical, intellectual, emotional, moral, and religious. Physical education, the groundwork of all, we did not consider, for reasons indicated at the outset. Intellectual education develops man's capacity to know the truth, that he should pursue it. Emotional education develops man's capacity to feel the beautiful, that he should love it. Moral education develops man's capacity to will the good, that he should desire it. Religious education develops man's capacity to sense the divine, that he should rest in it.

And the aim of it all is not to fit us for future complete living, but to make us live completely now. The perfect life is not something that awaits us of a sudden, it is something to win increasingly as the moments pass. This perfect life has value in itself; it includes the ideals of health, truth, beauty, goodness, and God, these five, and the last all in all. The practice of the principles of education wins for us the promise of the Gospel, "Ye shall be perfect."

Problems for Further Study

1. Historical and Literary Criticism of the Bible.
2. The Curriculum of Religious Education.
3. The Value of the Old Testament for Religious Education.
4. The Inspiration of the Scriptures.

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